

ART. XV.—Notes on Australian Coleoptera. By COUNT  
F. DE CASTELNAU.

PART II.

Second Family—CARABIDÆ.

This great family is largely represented in Australia, and the proportion of species found on this continent is at least equal to the number of its representatives in the European fauna. I will present in a summary way the catalogue of the known sorts, and describe briefly those much more numerous that are still new to science; in this paper, however, I shall only be able to review the first tribes of the family.

*Pamboridae.*

The genus PAMBORUS forms most entirely this tribe, and is entirely Australian. Mr. Gory gave in 1836, in Guerin's *Magasin de Zoologie*, a monograph of these insects, in which he describes five sorts—*Alternans*, *Morbillosus*, *Guerini*, *Viridis*, and *Elongatus*. The first had previously been described by Latreille, and the two following by Boisduval in his "Fauna of Australia." I have since then described in my "Etudes Entomologiques" a sixth sort, under the name of *Cunninghamii*, from the Northern territory.

I have endeavoured, but in vain, to find permanent characters separating *Alternans* from *Morbillosus*, and I believe them to be mere varieties one of the other. *Guerini* presents a particular appearance, which caused Mr. Hope to propose for it the genus *Callimosoma*, but this has not been adopted by subsequent authors. Mr. Masters has lately found in considerable numbers, in the Pine Mountains of Queensland, an insect differing only from *Guerini* by the absence of the golden margin of the elytra; but it appears to be a simple variety of it. In some specimens the thorax is much broader than in others. No sorts of *Pamborus* have yet been found in Victoria, but they appear to be rather common in the northern parts of New South Wales and in Queensland. *Viridis* is found on the Clarence River; it is easily identified by its green colour, and the lateral costæ of its elytra being entire. It is generally smaller than *Alternans*, but I have seen specimens from Brisbane as large as those of this species.

I have only two new sorts of *Pamborus* to record here.

*Pamborus Brisbaneensis*: length 11'; black with a green margin to the thorax and to the elytra; thorax broad, much wider behind than at its anterior part, with a lateral border forming a deep margin towards the posterior angles; it has a deep and longitudinal sulcate on the disc, and two short but deep ones on the posterior part; elytra with eight longitudinal and equal costæ, between each of which is a line of elevated punctures.

This insect has nearly the form of *Guerini*, and two specimens were found by Dr. Howitt near Brisbane; one is, through his kindness, in my collection.

*Pamborus MacLeayi*: length 10'; much shorter and broader than *Alternans*, and something of the form of *Guerini*; black, with the margin of the elytra of a dark green; thorax almost square, strongly marginated laterally, with the posterior angles broad and very protuberant; the impressions similar to those of *Alternans*, but the form very different, being much broader and wider in its posterior part; elytra shorter, but with costæ and impressions like *Alternans*.

In my collection, found by Mr. Wilcox on the Clarence River.

#### LACORDAIRIA.

The new genus I propose under this name is very remarkable, as presenting characters belonging to various groups; the long-pending palpæ show its affinity with *Cychrus* and *Pamborus*, but the anterior legs are strongly emarginated on their inner side, like those of many true *Carabidæ*, *Brachynidæ*, &c. It is evident to me that this insect ought to be placed between the last *Cychridæ* (*Sphæroderus*) and *Pamborus*, which, in my system, are all united in one family, but Mr. Lacordaire having divided it in two, it must be placed at the head of his *Pamboridæ*, in modifying the characters of that family, as far as the anterior legs are concerned; this genus has also a great affinity with *Lestignathus*, but is very distinct by the form of its palpi. Maxillary palpi very long, hanging down, with their second articles long, broad, inflated, particularly towards its extremity, third conical much shorter than the precedent, fourth very large, oval, dilated inside, pointed at its end, where it is hirsute. Labial palpi like the former, with their second article very long, the third short, and the terminal large, inflated and of an oval form, dilated inside, and pointed at its extremity; it is hirsute. Labrum large, furcated; mentum without a tooth; antennæ rather

long, slender, with the first article much longer than the others, the second the shortest of all, the third rather longer than the following, which are hirsute. Legs rather slender; anterior thighs rather inflated, and canaliculated on their inner side; tibiae of the same pair strongly emarginated; spurs situated one before the end and the other apical. Tarsi slender, the anterior ones rather dilated in the male, spongy beneath; the first article the longest, the other three cordiform, the fourth being the shortest; claws simple. Head small, oval, narrowed behind the eyes, these small; thorax something like the one of *Cychnus rostratus*; elytra oval, rather long, separated from the thorax. This genus is dedicated to the illustrious author of the "Genera des Coléoptères."

*Lacordairia Cychroides*: length 5'; of a brownish black; head oval; thorax almost square, rather narrowed behind, with two strong longitudinal impressions on the posterior part, a sulcate in the middle, and the sides strongly margined; its anterior and posterior angles rounded; elytra rather long, covered with fine regular and deep longitudinal striæ; the parts of the mouth, and intervals of the two striæ impressed towards the end; antennæ, from their fourth article, and tarsi of a light brown.

Clarence River and Brisbane, under stones.

*Lacordairia Proxima*: length 5'; differs from *Cychroides* by its form, broader and shorter; the thorax is wider and about as broad as long, with its anterior angles more advanced; the elytra are also broader, more of an oval form, with the striæ generally deeper.

From the mountains of Victoria (Yankee Jim).

*Lacordairia marginata*: length  $3\frac{1}{4}$ '; very nearly allied to *Calathoides*, and of the same form; the impressions of the posterior part of the thorax shorter; striæ of the elytra not deeper towards the sutura than near the margin; a yellow margin to the elytra.

I found a single specimen of this insect at Melbourne in a flood of the Yarra River. It probably inhabits the mountains of Victoria.

*Lacordairia angustata*: length 6'; very much of the same form as *Cychroides*, but more elongated; thorax longer, a little more cordiform, with the posterior angles more erect; elytra a great deal longer, being at least two and a half times the length of the thorax, for all it is larger itself than in all the other sorts.

From the Blue Mountains of New South Wales.

*Lacordairia Erichsoni*: length  $4\frac{1}{4}'$ ; of a rather shiny black; head oval and long; thorax almost square, about as broad behind as in front, rounded laterally, with the margin much broader behind than on its anterior part; it has a longitudinal sulcate on the middle, and a strong impression on each side behind; elytra striated, with the intervals flat; they are rather broad, depressed, oval form, and have a strong line of punctures on the margin; parts of the mouth, antennæ, and tarsi, brown; antennæ hirsute after their first three articles.

I had this insect in a collection, where it was stated to be from Tasmania.

Note.—*Lacordairia proxima* and *angustata* are distinct by their narrow and cordiform thorax, and the numerous strong striæ of their elytra; *Calathoides* and *Erichsoni* by their broader and more square thorax, and the striæ of the elytra less numerous, and with the intervals flat, which gives them a more smooth and brilliant appearance.

*Lacordairia Calathoides*: length  $3\frac{1}{2}'$ ; of a metallic black, very shiny; thorax broader than in the preceding, with its anterior angles much more rounded; elytra short, oval, with longitudinal striæ feeble near the margin and stronger towards the sutura; a series of very large punctures on the margin of the elytra; anterior parts of the mouth and legs brown; head very small.

Tasmania.

*Lacordairia Argutoroides*: length  $3'$ ; head oval; thorax almost as long as broad; rather narrow in its posterior part; slightly marginated laterally; the anterior angles rounded; it presents a longitudinal striæ on the middle, and two impressions behind: elytra of an oval form, rather strongly striated; the entire insect is of a dark brown, with the parts of the mouth, antennæ, and legs, of a dark yellow.

From the mountains of Victoria (Yankee Jim). Dr. Howitt's collection.

*Lacordairia Anchomenoides*: length  $3'$ ; of a more elongated form than the preceding; head oval, of a dark brown, with the parts of the mouth and the antennæ of a light yellowish colour; the last article of the palpi dark; thorax oblong, a little broader in front than backwards, with the anterior angles very rounded; it has a broad and equal lateral margin, a rather deep longitudinal striæ on the

centre, and two impressions on its posterior part; its colour is of a light brown, with the margin lighter; elytra of a long oval form, striated, of a glossy brown, with the margin of a light yellow-brown; inferior parts of the body and legs of the latter light colour.

Mountains of Victoria (Yankee Jim). In Dr. Howitt's collection.

*Carabidæ Proper.*

*Carabus* which is otherwise represented in most temperate regions of the world, either in the northern or in the southern hemisphere, does not appear to inhabit any part of Australia. As far as general form goes it seems to be represented by *Pamborus*. The allied genus *Calosoma*, on the contrary, has at least three representatives in New Holland—*Curtisii* (Hope) which is the same as *Shayeri* of Erichson, seems to inhabit the entire continent of New Holland. I have it in my collection, from Melbourne, New South Wales, the Paroo River, Flinders River, Swan River, Ganthaume Bay, and Adelaide. It is never very common.

This *Calosoma* has nocturnal habits, and is sometimes taken during dark nights in the most frequented streets of Melbourne.

The other sort described, *Calosoma Australis* (Hope), is a very rare insect, of which few specimens have yet been found, generally towards Cooper's Creek, in the central part of the continent.

I describe here a new sort in Dr. Howitt's collection.

*Calosoma Grandipenne*: length 12'; of a dark green, lighter on the margins of the elytra; head smooth, having only a few punctures near the eyes; thorax short, broad, rounded laterally; marginated with a longitudinal sulcate in the centre, and two large round impressions behind; it is smooth on the disc, and granulated laterally; elytra very large, broad, twice and a half as long as the head and thorax united: convex, covered with very strong punctato-striæ; the intervals between these striæ having a few impressions, these latter forming regular lines on the eighth and twelfth intervals; margins granulous; lower side of the thorax of a metallic green; abdomen brown, with the sides of the segments tinged with green; legs black; parts of the mouth and antennæ of a dark brown.

Only one specimen of this insect has been found near Melbourne.

*Odacanthidæ.*

Of this tribe I only know a new genus, and representatives in Australia of *Casnonia* and *Ophionea*. Mr. MacLeay, jun., has described, in the "Transactions of the Entomological Society of Sydney," two insects as *Odacantha*, but one is a *Casnonia* and the other is not perhaps even a *Truncatipenni*, but in all cases does not belong to this tribe, perhaps to the following

## CASNONIA.

*Casnonia Obscura*: length  $3\frac{1}{2}'$ ; black; thorax covered with a dense puncturation, and bordered on the sides; elytra glossy with puncturated lines which do not extend over their posterior portion; parts of the mouth and four first articles of the antennæ of a pitch brown; legs yellow with the knees brown; the tarsi spotted with the last colour.

Rockhampton; sent to me by Mr. Thouzet.

*Casnonia Micans.*

*Odacantha Micans*: MacLeay, jun., "Trans. of the Ent. Soc. of Sydney."

From Port Denison.

*Casnonia? Clarensi*: length  $5\frac{1}{2}'$ ; of a glossy black; head long, oval; thorax long, with a slight longitudinal line in the middle; its disc covered with little transversal striæ and its sides strongly punctured; elytra with punctured striæ, which do not extend further than the middle, with a large yellow oval spot on the extremity; legs yellow, with the knees and tarsi brown; extremity of the palpi yellow.

I received this pretty insect from Mr. Wilcox, who found it near the Clarence River. It is of large size for the genus, and its elongated form gives it the appearance of the genus *Apiodera*. Having only one specimen I could not dissect the buccal parts.

## OPHIONÆA.

This is entirely an Indian form; it differs only from *Casnonia* by the fourth article of its tarsi, which is bifid.

*Ophionæa Thouzeti*: length  $3\frac{1}{3}'$ ; black; thorax red; elytra feebly striated of a dark blue, with a transverse yellow band on their anterior third part, and another on their extremity; there is also a short white longitudinal spot on the posterior part that joins the latter band, below black, with the thorax red; legs brown, with the thighs of a

dark blue; parts of the mouth and base of the antennæ brown.

This beautiful little insect was found by Mr. Thouzet near Rockhampton.

Note.—This insect is very nearly allied to one of the Indian sorts that have been wrongly united with *Cyanocephala*, but differs by the white posterior spot of the elytra being a short longitudinal line, and not a rounded one.

#### ANASIS.

Mentum emarginated, with a feeble but inflated tooth in the centre; the wings of the mentum very short and broad, rounded at the apex; mandibulæ rather short, arched, pointed; labrum transversal, ciliated; palpi maxillary with their two terminal articles large, long, the third embracing the base of the last, which is oval or rather pointed at the extremity; the last of the labial rather large, oval, and pointed; antennæ filiform, as long as the head and thorax together; the first article long (of the length of the two following together), the second short, the third much longer than the following, the others almost cylindrical; head rather large, oval, with the eyes prominent, and forming behind a rather long neck; thorax much narrower than the head, fusiform, rather inflated in the middle; scutellum small, triangular, elongate; elytra much broader than the thorax, depressed, parallel, truncated behind, and a little shorter than the abdomen; legs rather long; slender anterior thighs, rather inflated near the knees; tibiæ entire, slender at the base, increasing in size towards the tarsi; these long, slender, their first article longer than the following, the fifth the largest of all; anterior tarsi thicker, almost cylindrical, the first and fifth articles long and about equal, the others short, the second triangular, and the two following rather cordiform; claws simple.

This genus comes very near to *Odacantha*, of which it has the form.

*Anasis Howittii*: length 4'; of a bronzed brown; head black; thorax covered with strong puncturations and having a longitudinal sulcate on each side; it has also a longitudinal sulcate in the middle; elytra with punctate striæ; legs, palpi, and antennæ, yellow.

From Geelong, in the colony of Victoria; found on a flower, and is in Dr. Howitt's collection.

*Ctenodactylidæ.*

The insects of this group known till now are all American, and it is with hesitation that I transfer to it the new genus I propose forming under the name of *Eudalia* on the *Odacantha Latipennis* of Mr. MacLeay. This insect can hardly be called a *Truncatipenni*, his elytra being only slightly sinuated, but not truncated at the extremity. On account of the claws of its tarsi being simple, it can only be placed with *Leptotrachelus*, but its form is nearly allied to *Pionycha*, and it is well characterised by the penultimate article of the tarsi not being bilobed.

*Eudalia Latipennis.*

*Odacantha Latipennis*.—MacLeay "Trans. of the Ent. Soc. of Sydney."

From Port Denison.

*Eudalia Waterhousii*: length 5'; black, covered with a dense puncturation; elytra striated, and having a very narrow posterior yellow margin; parts of the mouth, base of the antennæ and legs of a brownish yellow. Same form as the first species.

This insect was found by Mr. Waterhouse in Arnheim's Land, and that gentleman kindly favoured me with a specimen of it.

*Galeritidæ.*

## DRYPTA.

Of this genus one sort (*Australis*, MacLeay, senior,) has been known for a long time; no others have yet been discovered in Australia, but I will describe here a species of an allied genus.

*Dendroscellus Smaragdinus*, "Chaud. Materiaux," &c., 1861, p. 55: length 5'; bluish green, very densely punctured; palpi, antennæ and legs black; thighs, with the exception of the knees, parts of the mouth, base of the antennæ, and tarsi of a brownish red.

This pretty insect was sent to me from Rockhampton by Mr. Thouzet; it is very nearly allied to *Longicollis Dej.* from Malacca, but it is distinguished by its tibiæ, which are black in the Australian, and red in the Indian species. It is by mistake stated by Baron Chaudoir to have been found near Melbourne.



## ZUPHIUM.

The number of known sorts of this genus is very limited, but they are disseminated all over the globe; New Holland seems to have a fair share of them; four are in my collection, of which one appears to be the *Z. Australis* of Chaudoir, found by Mr. Masters about Sydney; the others are new.

*Zuphium Thouzeti*: length  $4\frac{1}{2}'$ ; of a brownish black; antennæ of a lighter colour and pubescent, with the exception of their first article; elytra striated, with a reddish spot on the humeral angle; this spot disappears in some specimens; abdomen and parts of the mouth brown.

Rockhampton. Found by the indefatigable collector, Mr. Thouzet; I have one specimen also from Port Denison.

*Zuphium Rockhamptonensis*: length  $2\frac{1}{2}'$ . This little species is very like *Z. Chevrolati* of the south of Europe; the head is black, with the base of the antennæ and buccal parts testaceous; thorax of a light brown; elytra lightly striated, yellow, with a broad brown transversal band on the middle which grooves narrower towards the sutura; lower parts of the body and legs yellow.

Rockhampton. Very rare, sent by Mr. Thouzet.

*Zuphium Mastersii*: length  $2\frac{1}{2}'$ ; same size, and very much like the former; head black, with a brown spot behind the eyes; parts of the mouth and entire antennæ yellow; thorax of the same colour, as also the elytra and the rest of the body and legs; elytra striated; a few long straight hairs dispersed over the body.

The unique specimen of this sort in my cabinet was found by Mr. Masters on the Eastern Creek, New South Wales.

## ZUPHIOSOMA.

The insect on which I propose forming this new genus has entirely the form of *Zuphium*, but is distinct by the basal article of the antennæ much shorter and the absence of the tooth of the mentum. It could only be taken for *Metaxidius*, but it differs by the palpi, which are not hirsute, and the antennæ longer than half of the body, and formed of articles long and slender.

*Zuphiosoma Fulva*: length  $3'$ ; of a reddish brown; head and thorax covered with a dense puncturation; elytra rather darker, punctured and striated; parts of the mouth, antennæ, and legs of a dirty yellow.

Rockhampton, Mr. Thouzet.

*Helluonidæ.*

This tribe, entirely absent in Europe, is numerously represented in Australia; all its sorts were till lately placed under the generic name of *Helluo*, but the researches of modern entomologists have limited that genus to the only species on which Bonelli had established it, *Hellus Costatus*, first brought to Europe by Peron, the learned naturalist of Captain Baudin's expedition. To this insect, Baron Chaudoir adds ("Bulletin de Moscou") a sort he calls *Carinatus*, which is not well known to me. I received one specimen under that name from Count de Mniszech, but it is so very closely allied to *Costatus* as to be very difficult to distinguish from it. It is thought certain that some of the specimens found near Sydney differ considerably from those of Melbourne and Tasmania.

Mr. Lacordaire states erroneously that in this family the tarsi are similar in the two sexes; in the Melbourne *Helluo*, which I believe to be the same as *Costatus*, the anterior tarsi of the male are dilated.

The *Helluonidæ* of Australia can be divided in the following manner:—

## A. Body without wings—

- a.* Antennæ not compressed, but more or less cylindrical.
- \* Labrum covering almost or entirely the mandibulæ.
- s.* Tooth of the mentum short and obtuse (*Helluo*.)
- ss.* Tooth of the mentum very long, slender and acute (*Pseudhelluo*).
- \*\* Labrum square, not covering the mandibulæ (*Acrogonys*).
- aa.* Antennæ compressed (*Helluodema*).

## B. Body with wings—

- a.* A tooth to the mentum.
- \* Head oval (*Gigadema*).
- \*\* Head inflated behind the eyes (*Helluosoma*).
- aa.* No tooth to the mentum (*Ænigma*).

*Pseudhelluo* has the general form of *Ænigma*, but is easily characterised by its very large labrum covering entirely the mandibulæ and its mentum having in its centre a long spine; the wings of that organ are also very long; the last article of the palpi is conical; the anterior tibiæ are sulcated and very strongly emarginated.

*Pseudhelluo Wilsonii*: length 5'; head broad, covered with a dense and strong puncturation, black, with the parts of mouth and antennæ yellow; eyes very large; thorax short, very broad, with the anterior angles rounded; a longitudinal sulcate on the middle of the disk; it is flat, very strongly punctured, and of a reddish brown; scutellum small and elongated; elytra depressed, brown, covered with points, and having numerous longitudinal and regular striæ: under side of the body and legs of a light reddish brown. All the upper part of the insect is hirsute.

From Brisbane; sent to me by Mr. Wilson.

*Acrogonys* has been established by Mr. MacLeay, junr. ("Transactions of the Entomological Society of Sydney," No. 2), on an elegant insect from Port Denison; it is very nearly allied to *Helluo*, and if it was not for the form of the labrum it ought to be united with that genus. The only sort known, *Hirsuta*, presents two different forms, probably sexual; in one, the costæ of the elytra are all about equal; in the other, they form on each side of the insect a sort of carina.

*Helluodema* is a new genus I propose establishing on Mr. Thomson's *Helluomorpha Batesii* ("Arch. Ent." vol 1, p. 134). This insect has the general appearance of *Helluomorpha*, but cannot be united with it, the terminal article of the labial palpi being securiform as the maxillary and the fourth article of the tarsi being of the same form as the preceding, and not bilobated; the tooth of the mentum is simple, and the body without wings. The general form is elongate, slender, with the sides of the body almost parallel. The compressed form of the antennæ clearly separates this genus from all the others of the tribe found in Australia.

This insect inhabits Moreton Bay and the Clarence River.

*Gigadema* is a name proposed by Mr. Thomson in his "Arcana Naturæ" for a large *Helluo* of the northern parts of Queensland, the principle character of which ought to be, according to this author, the absence of a tooth to the mentum, and on this account he compares it only with *Ænigma*. Unfortunately no sort of *Helluonidæ* probably has a tooth more distinct than this, and it is curious to see that this very tooth is faithfully represented in the beautiful figure Mr. Nicolet has given of this insect in Mr. Thomson's own work. Without this I should hardly have believed that the insect I was studying was the same as Mr. Thompson's. This genus *Gigadema* has been established on an entire

false character, but for all that, as the insect on which it is formed must be separated from *Helluo*, I propose to preserve the name in modifying its generic characters.

Since Mr. MacLeay has described, under the name of *Helluo Grandis*, an insect that appears to be the same, probably another sex, but this fact is uncertain; it differs from *Titana* by the anterior margin of its thorax, which is advanced and circular, and by the terminal article of its maxillary palpi being a little more securiform. Germar has also described a sort under the name of *Helluo Longipennis*, very nearly allied to the former. The sorts known to me as belonging to this genus are the following:—

1. *Gigadema Titana*, Thomson, "Arcan. Nat." page 93, pl. 5, figs. 7, 8.

From Port Denison, Clarence River, and the region of the Lachlan River.

2? *Gigadema Grandis*, MacLeay, junr., "Transactions of the Ent. Soc. of Sydney," No. 2, p. 108.

From Port Denison.

3. *Gigadema Longipennis*, Germar; "Linn. Ent.," vol. 3, p. 162.

Generally from South Australia, but I have some specimens rather smaller from the Paroo River, and one other of the same size from Swan River. In many specimens the anterior thighs are considerably inflated. The tooth of the mentum is bilobated.

4. *Gigadema Bostockii*: length 17'; very nearly allied to the two preceding, but broader; entirely of a glossy black; head large, deeply punctured; thorax broad, cordiform, with the anterior angles protruding and rounded as in *Longipennis*; the disk shiny and without punctures, the margin densely covered with them; a deep longitudinal sulcate in the middle; elytra strongly striated, with the intervals of the striæ deeply punctured; legs and inferior parts of the body covered with strong puncturations.

I received this insect from the Rev. Mr. Bostock; it inhabits the northern parts of Western Australia.

5. *Gigadema Paroensis*: length 11'; of a shiny black; covered with very strong puncturations which extend over the entire thorax with the exception of some small spaces on the disk; the thorax is cordiform, broad and straightly truncated in front; elytra moderately elongate, striated and strongly punctured; antennæ hirsute, except on the four basal articles.

One single specimen in my collection, from the Paroo River, in the central parts of New Holland.

Note.—This fifth sort is easily distinguished by its smaller size and its thorax almost entirely punctured; *Grandis* has the anterior margin of its thorax advanced and rounded in the middle, with its anterior angles obtuse; *Titana* and *Longipennis* have both the anterior margin of the thorax lightly emarginated, and the anterior angles advanced, but the first is constantly larger than the other, and its thorax is broader in its posterior part and less cordiform. *Grandis* is of all the one whose punctures are the finest.

6. *Gigadema Minuta*: length 10'; of an opaque black; covered with very strong punctures, more dense on the disk of the thorax than on any other part; head large; thorax broad, very short, with its sides rounded; elytra striated; inferior parts of the body punctured, but rather glossy; antennæ hirsute, except on the four first articles.

Ipswich (Queensland); found by Dr. Howitt, to whom I owe a specimen. Since, I have received two more from Port Denison.

Note.—This insect is, perhaps, Mr. Hope's *Ænigma Unicolor*, but his description agrees equally with several other *Helluonidæ*.

7. *Gigadema Thomsoni*: length 12'; of a dull black; covered with a dense puncturation; thorax broad, the sides rounded, but forming a sort of angle at their posterior and broader part; elytra covered with small punctures, and striated.

From Port Denison.

This sort is very much like the former, but the colour is more dull, the head is less impressed in front; the thorax is more equally punctured, and has a different form; the elytra are not so deeply striated.

*Helluosoma* is another new form of *Helluonidæ*, which is distinguished by the presence of wings, the mentum armed with a tooth, and the head inflated laterally behind the eyes. The form is rather depressed, broader than in *Gigadema*, and the colour generally brilliant and metallic, often blue, as in *Ænigma*. Five sorts of this group are in my collection; the head is rather large; the antennæ rather long and cylindrical; the thorax strongly cordiform.

*Helluosoma Ater*: length 7'; black; very strongly punctured; antennæ hirsute; thorax rather long, slightly impressed; elytra finely punctured and striated; inferior

parts glossy ; tarsi brown. This is the only sort of the genus entirely black.

Sent to me from Rockhampton (Queensland), by Mr. Thouzet.

*Helluosoma Resplendens* : length 6' ; strongly punctured ; of a beautiful metallic blue ; pubescent ; parts of the mouth and antennæ black ; thorax short ; abdomen glossy ; elytra long and parallel.

This beautiful little insect was found near Port Denison by my collector, Mr. Girardin.

*Helluosoma Cyanipenne*, Hope (*Ænigma*), "Transact Ent. Soc. of London;" length 8'-10' ; black, brilliant ; strongly punctured ; thorax impressed ; elytra depressed, rather broad, of a beautiful blue, densely punctured and striated.

Port Denison and Rockhampton.

Note.—This insect was placed by Hope in the genus *Ænigma*, probably on account of its colouration, but it has a tooth to the mentum.

*Helluosoma Cyanea* : length 9½' ; of a dull, dark blue, almost black ; general form elongate ; pubescent ; strongly punctured ; thorax impressed ; elytra long, parallel, of a dark blue, strongly punctured and striated.

Rockhampton, by Mr. Thouzet ; Clarence River, Mr. Wilcox.

*Ænigma* is easily distinguished by its broad compressed form, which makes it very different from the other genera of the family. It was established by Mr. Newman on a very beautiful insect from Queensland, that he called *Iris*. Since, Mr. Hope, "Trans. Ent. Soc.," has described two other sorts under the same generic name, but one is certainly a *Helluosoma*, and the other evidently does not belong to the genus.

The *Ænigma Iris* is an insect of the most magnificent purple, with the head, thorax, and posterior margin tinged with metallic green ; its thorax is very broad, transversal, very little narrower behind than at its front part.

It is found not only in Queensland, but also in New South Wales, but is very rare in all parts.

I describe as new the two following sorts.

*Ænigma Newmanni* : length 8'-10' ; which is only distinguished from the former by the form of the thorax, which is less transverse, more cordiform, and much narrower behind. It may be a variety of the precedent.

I have in my collection a specimen from Cook's River, near Sydney.

*Ænigma Splendens*: length 10'. This magnificent insect is of a beautiful green, with a purple tinge at the base of the elytra; head with some scarce punctures; parts of the mouth and antennæ black; the latter hirsute, except on their first article; thorax broad, but much narrower behind than in front; elytra densely punctured and striated; inferior parts of the body brilliant, and of a blackish green; legs black

Sent to me from Port Denison by my collector, Mr. Girardin.

### *Brachinidæ.*

This tribe, which is numerously dispersed almost all over the world, is most scantily represented in New Holland. Of its different genera one alone, which is almost of a tropical form (*Pheropsophus*), has been found till now on that continent. The *Pheropsophus Verticalis*, of which Dejean made an *Aptinus*, is rather common; I have it from Brisbane, Sydney, Melbourne, and Adelaide, but it is much more abundant in the eastern colonies than in the southern. It is subject to considerable variations in its colouration, the thorax being sometimes entirely black, sometimes yellow with the only exception of the anterior margin, and often spotted, with these two colours. All these varieties are found in the different localities I have mentioned.

Mr. Howitt, the explorer, brought from Cooper's Creek a variety of this insect, in which a humeral yellow spot is often seen, and in one specimen the yellow spots have so much expanded that the elytra seem to be of that colour, with four black spots on each, two being sutural and common to both. The specimens of *Pheropsophus* from the north of Queensland form a different species.

*Pheropsophus Australis*: length  $8\frac{1}{2}$ '; head orange colour, with a black transversal band between the eyes; thorax black; elytra of the same colour, without any posterior yellow margin, but with a rather narrow transverse yellow and sinuated spot a little before the middle; inferior parts of the body black; under side of the thorax marked with orange colour; parts of the mouth, antennæ, and legs orange; knees black.

From Rockhampton (Queensland).

Note.—This sort is very nearly allied to *Verticalis*, but easily distinguished from it by its larger size, its elytra rather longer, without the terminal bordure, the colour

of the inferior part of the margin of the elytra, which is not yellow but black, and the transversal yellow spot much narrower.

#### *Lebiidæ.*

This family is very extensively represented in Australia, but the documents I have collected on it not being ready, I will reserve them for a future publication.

#### *Pericalidæ.*

This family, as established by Lacordaire, contains a most extraordinary assemblage of insects belonging evidently to very different groups; *Coptodera*, *Phylophlæus*, &c., are very nearly allied to *Lebiidæ*, and I will postpone the study of them till I describe the latter. *Mormolyce* is a gigantic *Agra*; *Scopodes* cannot be in a natural system far removed from *Elaphrus*. I will here mention a true *Catascopus*, which does not seem to have been described.

*Catascopus Chaudoiri*: length 10'. This insect is one of the largest of the genus; it is more nearly allied to *Brasiliensis* than to any other known to me. It is entirely of a dark green, with the thorax generally a little lighter; head large, with two strong longitudinal impressions between the eyes, and two slight ones further backwards; thorax more broad than long, cordiform, strongly margined laterally, with the anterior angles protruding; it has a deep longitudinal sulcate on its centre, a strong, arched, transverse impression forward and another straight behind; elytra long, parallel, depressed, very strongly emarginated at their extremity; the upper angle of this excavation forming a strong tooth; they are covered with deep striæ; the interval between the second and third marked with three punctiform impressions; a sort of carina runs from the humeral angle to the extremity, following at some distance the margin; inferior parts of the body, legs, parts of the mouth and antennæ black; tarsi covered with a brown pubescence.

Clarence River.

The head is sometimes black, and the elytra have, in some specimens, a bluish tinge.

#### *Pseudomorphidæ.*

This most curious family is almost entirely Australian. The sorts belonging to it seem to be dispersed all over this vast continent.



## SILPHOMORPHA.

*Silphomorpha Picta*: length  $5\frac{1}{2}'$ ; resembles entirely *Nitiduloides*, with the exception of the thorax, which is either entirely black, or with two broad longitudinal bands of that colour, leaving the middle red.

This insect is found rather commonly in the northern parts of Queensland, at Port Denison, and Rockhampton. Of the numerous specimens I have received, not one has the thorax entirely red as are the specimens of *Nitiduloides* found in Victoria and New South Wales.

*Silphomorpha Marginata*: length  $5'$ ; broad, depressed, of a shiny black; parts of the mouth, antennæ, and the very narrow lateral margin of the thorax and elytra brown; the latter with a large yellow spot extending to all the length of the elytron, and on its base, dilated at its extremities; having entirely the form of the one of *Nitiduloides* and *Picta*, but running at some distance of the margin; inferior parts of the body and legs of a brownish black.

From the Paroo River, in Dr. Howitt's collection.

*Silphomorpha Quadrisquata*: length  $3'$ ; black, glossy; the sides of the thorax and elytra yellow; the centre of the first having generally a red or yellowish longitudinal band; elytra smooth, very feebly striated, and having each two yellow spots, the first at the base in its middle, bifurcated at its inferior extremity, and the second not far from the end, oblong, pointed at top and growing broader toward the extremity; parts of the mouth, lower side of the body and legs of a light yellow brown; the sides of the thorax and abdomen often black.

This insect is rare in Victoria, and more common in South Australia.

*Silphomorpha Bicolor*: length,  $3\frac{1}{2}'$ ; black, glossy; elytra very feebly striated; margins of the thorax and elytra black; a longitudinal band on the latter nearer to the margin than to the sutura, arched, wide at its base, where it forms a sort of a hook; it terminates a little before the extremity, and does not touch the sutura; parts of the mouth, antennæ and inferior side of the body brown; the lower sides of the thorax and abdomen black.

From Rockhampton, Mr. Thouzet; and Port Denison, Mr. Girardin.

Variety, similar; but the thorax yellow, with only a black longitudinal band on each side.

## Port Denison.

Note.—This may be a distinct species, but having only seen one specimen of it, I think it prudent to wait till more are discovered.

*Silphomorpha Amabilis*: length  $4\frac{1}{2}'$ ; head black, with the parts of the mouth and antennæ of a reddish brown; thorax yellow, with a large black spot occupying its centre; elytra yellow, with a black spot on the base near its centre; the sutura, the extremity, and a very broad transverse band on the middle of the same colour; this band is dentated on its sides, and does not extend to the margin; inferior parts of the body and legs of a light brown.

## Port Denison.

*Silphomorpha Marginata*: length, 3'; very nearly allied to *Guttiger*, but smaller, of a dark brown; parts of the mouth and antennæ of an orange yellow; lateral margins of the thorax and of the elytra of the same colour; the latter entirely smooth; a yellow spot on the sutura of an oval form, but ending in a point towards the scutellum; this spot does not extend so far towards the latter organ as in *Guttiger*; lower parts of the body and legs of a darkish brown.

## Melbourne and Sydney.

*Silphomorpha Bimaculata*: length 6'; very nearly allied to *Colymbetoides*, but narrower; no red margin to the thorax, and a very narrow one to the elytra; the yellow spot on the elytra almost round, or rather oblong.

## Rockhampton.

*Silphomorpha Biplagiata*: length  $6\frac{1}{2}'$ ; also very nearly allied to *Colymbetoides*, and having the same broad and depressed form; no red margin to the thorax, nor to the elytra; the yellow spot of the latter round, or rather oblong.

## Brisbane.

*Silphomorpha Discoidalis*: length 3'; nearly allied to *Guttiger*, but smaller and more oval; of a light reddish brown, very brilliant; sides of the thorax lighter; elytra black, with the external margin brown; a large broad spot of the colour of the thorax covering the scutellum, and running along the sutura; its external side keeping an oblique direction; the surface of the elytra is very smooth; there is a weak sutural stria, and a few others more feeble on the surface (they can only be seen with a magnifying power); under sides red; legs yellow.

From the Murray River.

Note.—This insect is also allied to *Suturalis*, but its form is more oval, more narrow; the yellow spot of the elytra is much broader at the base, so as to have, when the two elytra are united, a very long triangular form.

*Silphomorpha Thouzeti*: length  $2\frac{1}{2}'$ ; very nearly allied to *Marginata*, but of a more elongate and oval form; no yellow margin to the thorax, nor to the elytra; the sutural spot rather broader than in *Emarginata*; parts of the mouth and antennæ of a pitchy brown; lower parts of the body and legs of a dark yellow.

Rockhampton, Mr. Thouzet.

*Silphomorpha Rockhamptonensis*: length  $4\frac{1}{2}'$ ; of a dark pitchy brown, almost black, glossy; parts of the mouth and antennæ of the same colour; elytra smooth, with a dark yellow spot arising near the base towards the middle of the breadth, and directing itself obliquely towards the sutura, which it joins a little below the middle, forming thus, by the union of the two elytra, a sort of broad V; inferior parts of the body of a dark brown; legs rather lighter.

Rockhampton, Mr. Thouzet.

*Silphomorpha Occidentalis*: length 5'; general form rather broad, compressed; of a pitchy brown; parts of the mouth and margin of the thorax and elytra of a light reddish brown; a slight impression on each side of the thorax on its posterior margin; elytra with light striæ formed of points; the greater part of their surface is covered by a very large yellow spot which begins behind the humeral angle and joins obliquely the sutura, extending to near the extremity of the elytra; inferior parts of the body and legs of a light reddish brown.

Swan River. Sent to me by the Rev. Mr. Bostock.

*Silphomorpha Brisbaneensis*: length 5'; of a pitchy brown; parts of the mouth, antennæ, and a very narrow margin on the sides of the thorax and elytra of a brownish red; elytra with a few longitudinal undulations, but no striæ; they present on the sutura a long, narrow, and yellow spot extending to very near the scutellum and the extremity; it is moderately expanded towards its centre; inferior parts of the body of a dark brown; legs rather reddish.

Received from Mr. Wilson, of Brisbane; also from Port Denison and from the Clarence River, Mr. Wilcox.

*Silphomorpha Guttifer*: length  $3\frac{1}{2}'$ ; very nearly allied

to *Guttiger*, but form rather more elongate, and the yellow spot of the elytra almost circular and placed on the posterior half of the elytra.

Port Denison.

Note.—The last seven sorts are nearly allied to *Guttiger*, but are distinguished—*Occidentalis*, by its punctured elytra; *Marginata* and *Brisbanensis*, by the light-coloured margin of the thorax and elytra; *Guttifer*, by the yellow spot of the elytra being posterior; *Rockhamptonensis*, by the same, having the form of a V, by the junction of the two elytra; *Thouzeti*, by its elongate form, its general colour, &c.

I have now to mention a series of species entirely black, or of a dark brown without spots on the elytra; they are all more or less connected with *Sp. Fallax* of West, which is a large sort rather commonly found in the southern parts of Australia.

*Silphomorpha Grandis*: length 8'; of an oblong form; black, glossy; parts of the mouth and antennæ brown; thorax rather rounded on its sides; slightly bi-impressed on its posterior margin; elytra broad, almost parallel, very slightly striated; inferior side of the body and legs of a dark brown.

Port Denison.

*Silphomorpha Striata*: length  $6\frac{1}{2}'$ ; of an oval, depressed form; black, rather glossy; thorax much narrower in front than behind, bi-impressed on its posterior margin; elytra very strongly striated; these striæ not extending to the base; parts of the mouth, antennæ, lower parts of the body and legs of a dark brown.

From the northern parts of New South Wales.

*Silphomorpha Vicina*: length  $6\frac{1}{2}'$  to 8'; very nearly allied to *Fallax*, but bright and glossy; the thorax a little shorter and broader; the striæ of the elytra a little more strongly marked; the parts of the mouth of the same dark colour as the body; inferior side and legs of a dark and glossy brown.

Brisbane.

*Silphomorpha Denisonensis*: length  $6\frac{1}{2}'$ ; broad, depressed, black, rather shiny; head large; thorax large, broader than the elytra, with a wide lateral margin; its posterior margin very slightly impressed; elytra with strong striæ extending very near to the base; parts of the mouth, antennæ, lower side of the body and legs of a dark brown.

I have one single specimen from Port Denison.

Note.—By its black colour and strongly striated elytra, this sort can only be mistaken for *Striata*, but its head is larger, and the thorax much broader, more particularly so in its anterior part, with its margin much wider. It is also nearly allied to *Fallax*, but the elytra are more strongly striated; the body is broader and much more glossy.

*Silphomorpha Tasmanica*: length 8'; entirely of a reddish brown, and rather shiny; head without any impressions; thorax with its anterior angles considerably advanced and pointed; its margin much broader forward than at its posterior part; it is bi-impressed on its posterior margin; elytra strongly striated, except on the base, but entirely of the same colour; lower side of the body and legs of a reddish brown.

This insect is very nearly allied to *Fallax*, but distinct by its striated elytra; to *Mastersii*, but of a different form of thorax, and without coloured margin to the elytra; to *Brisbanensis* by its different colour, its much broader form, &c.

*Silphomorpha Lævis*: length  $5\frac{1}{2}'$ ; of a glossy dark brown, with a reddish lateral margin to the thorax and elytra; the first bi-impressed on its posterior part; the elytra appear smooth to the naked eye, but are very slightly striated; general form broad, compressed, rather short.

Port Denison.

Note.—The light colour of the margin distinguishes this sort from the preceding, and it is distinguished from *Mastersii* of MacLeay, jun., by its almost smooth elytra.

*Silphomorpha Dubia*: length  $5\frac{1}{2}'$ ; this insect only differs from *Mastersii* of MacLeay, jun., by its size being always at least one-third smaller than the latter. It seems to be found rather commonly in New South Wales, and *Mastersii* is abundant in the northern parts of Queensland; they are probably only local varieties of each other. Of a dark brown, brilliant, with a lateral margin of a lighter and redder colour on the thorax and the elytra, the latter rather strongly striated; lower side of the body, mouth, antennæ and legs reddish.

*Silphomorpha Semistriata*: length 5'; of an oblong form; dark brown, almost black, glossy; thorax with two impressions on its posterior margin; elytra marginated at the extremity with striæ that do not extend on the anterior

part of the elytra; mouth, antennæ, under side of the body and legs of a reddish colour.

Port Denison.

Note.—In form this sort is very much like *Grandis*; but is easily distinguished by its dimensions being so much smaller, and by the striæ of the elytra.

*Silphomorpha Ovalis*: length  $3\frac{1}{2}'$ ; of an oval and depressed form; colour shiny, of a dark brown; thorax, bi-impressed on its posterior margin; elytra with strong striæ which do not extend to the base; mouth, antennæ, inferior side of the body and legs of a reddish brown.

Pine Mountains of Queensland.

Note.—This insect has the form of *Mastersii* and *Dubia*, but is much smaller even than the latter; has no coloured margin to the thorax and elytra, and the striæ of the latter are shorter.

*Silphomorpha Lævigata*: length  $4\frac{1}{2}'$ ; form oblong, depressed; general colour of a light brown, shiny, with the lateral margins of the thorax and elytra a little lighter still; head dark, almost black; elytra entirely smooth, emarginated at their extremity; a few strong punctures, forming a longitudinal line, near the upper part of the margin; a feeble impression, like a short longitudinal striæ near the margin on the posterior part of the elytra; mouth, antennæ, under side of the body and legs of a light reddish brown; abdomen a little darker.

Victoria; rare.

Note.—I have to say a few words on the geographical distribution of the described sorts known to me. *Fallax* (*Oryctochiloides*) Hope, inhabits Victoria, South Australia, and New South Wales; *Colymbetoides*, Victoria and New South Wales; *Decipiens*, Victoria, New South Wales, and Port Denison, Queensland; *Suturalis*, common in South Australia, is also found in New South Wales, as I have received specimens from the Clarence River; *Guttiger*, in Victoria and New South Wales; *Nitiduloides* appears common in New South Wales, but is scarce near Melbourne; *Hydroporoides* is not rare in South Australia, nor in Victoria. All are found under the bark of trees, and run with great rapidity. I have not been able, in Australia, to consult the works containing descriptions of the following species, and so they may correspond to some of those I have here described: *Maculata*, *Albopicta* (Newmann), and *Lævissima* (Westwood).

## ADELOTOPUS.

*Adelotopus Vicinus*: length  $2\frac{1}{2}'$ ; very nearly allied to *Hydroboides*, but a narrower; the thorax broader, and its posterior angles depressing more the base of the elytra; extremity of the latter and abdomen of the same shiny black as the rest of the body; palpi and legs of a reddish brown.

Sydney.

*Adelotopus Paroensis*: length  $6'$ ; very nearly allied to *Hydroboides* and *Vicinus*, but distinct from both by its long, cylindrical form; the thorax is not broader than the elytra; the body is entirely covered with fine punctures, and its colour is of a shiny black; the parts of the mouth and the extreme terminal margin of the elytra and legs are of a brownish red.

From the Paroo and Darling rivers, in the central parts of New Holland.

*Adelotopus Occidentalis*: length  $2\frac{1}{2}'$ ; of a shiny black, covered with fine punctures; thorax narrower than the elytra; the mouth, antennæ, under side of the body, and legs of a brownish red.

This sort is very nearly allied to *Vicinus*, but is of a more elongate form, with the thorax narrower.

Swan River.

*Adelotopus Politus*: length  $3'$ ; of a polished black; body rather depressed; thorax broader than long; marginated laterally, with its sides rather rounded; elytra rather narrower backwards than at their anterior part; their posterior angles rounded; in some specimens a faint transverse line near the base; under side of the body, mouth, and legs, of a dark reddish brown.

From Brisbane and the Clarence River.

Note.—In some specimens, the lateral margins of the thorax have a bluish tinge.

*Adelotopus Punctatus*: length  $2\frac{1}{3}'$ ; of a dark brown, rather glossy; entirely covered with a dense puncturation; body rather depressed; thorax transverse, with its lateral margins broad and of a reddish brown; a very faint transverse impression at its posterior part; elytra almost parallel, with a brown margin; a very feeble sutural stria; under side of the body brown; parts of the mouth and legs of a dark red.

From the Clarence River, in Dr. Howitt's collection.

*Adelotopus Cornutus*: length  $3'$ ; body long, cylindrical, of a glossy dark brown; head with two tubercles on the fore-

head, forming two short horns, diverging one from the other; thorax with a very faint posterior and transverse impression; its sides marginated and almost straight; very little broader behind than in its anterior part; elytra parallel, with their posterior margin reddish; inferior parts of the body, parts of the mouth and legs of a dark red.

From Arnheim's Land. Sent by Mr. Waterhouse to Dr. Howitt.

Note.—This insect has a remarkable likeness to some of the *Diaperidæ*, of the genus *Oplocephala*.

*Adelotopus Fasciatus*: length 2'; black, glossy; long, narrow, cylindrical; thorax almost square, nearly as wide foremost as backwards, not broader than the elytra; these with faint longitudinal puncturated striæ, and a broad red transverse band, covering nearly the two first thirds of the elytra; this band does not entirely extend to the base, neither to the external margin, and is cut obliquely behind the scutellum; lower side of the abdomen red, thorax brown, legs reddish; parts of the mouth and antennæ black.

Sydney.

Note.—In some specimens the red colour on the posterior margin of the elytra extends considerably, and forms a transverse band.

*Adelotopus Affinis*: length  $2\frac{1}{2}'$ ; very nearly allied to the preceding, but larger and much broader; thorax wider than the elytra; the transverse red band of the last shorter, and not extending to one-half of the length; parts of the mouth, antennæ, abdomen, and legs red.

Sydney.

*Adelotopus Zonatus*: length  $2\frac{1}{4}'$ ; black, glossy; long, narrow, almost cylindrical; thorax rather broader than the elytra at its posterior part, considerably narrower forward; it has a feeble transverse impression, two other impressions near its posterior margin, and a very feeble sulcate on its middle, generally only visible at its posterior part; elytra rather unequal when seen through a lense, with a transversal band near the base, and another covering the extremity red; the first of these bands is much narrower than in the two preceding sorts; it is sinuous on its sides, narrower towards the suture, but does not extend to the external margin; on its surface one can see vestiges of longitudinal striæ; beneath black, with parts of the mouth, antennæ, abdomen, and legs brown.

Melbourne.



Note.—These three sorts are nearly allied to *Bimaculatus*, of McLeay, jun. (“Trans. Ent. Society of New South Wales,” Part II.), from Port Denison, but are very distinct by their much smaller size, more elongate form, the disposition of the coloured band of the elytra, &c.

*Adelotopus Brunneus*: length  $2\frac{1}{2}'$ ; entirely of a rather dark brown, rather opaque; body not very elongate, but with its sides parallel; head in great part enclosed in the thorax; this latter broader behind than in front, its sides equally marginated and rounded, a very faint transversal impression near its posterior margin; elytra darker at that end, marginated laterally, with a very faint, longitudinal, depressed line near the sutura; inferior part of the body and legs brown, but rather lighter than the upper surface.

Swan River.

*Adelotopus Castaneus*: length  $2\frac{1}{2}'$ ; more elongate and cylindrical than the preceding; of a lighter and more brilliant brown; head more free from the thorax, with its sides marginated but straight and oblique; a transverse impression backwards; elytra entirely of the same colour, with very faint longitudinal striæ, when seen through the lens.

Swan River.

Note.—*Brunneus* and *Castaneus* are nearly allied to *Aphodioides*, but easily distinguished by their smaller size, &c.; this latter I have from South Australia, Victoria, New South Wales, the Paroo River, and Port Denison; some of the latter specimens are narrower than the others; this may be a sexual character.

*Adelotopus Filiformis*: length  $2\frac{3}{4}'$ ; long, filiform, cylindrical; of a shiny brownish black, with the posterior third of the elytra red; head rather small for the genus; thorax longer than broad, marginated and straight on its lateral sides; bi-impressed backwards; elytra smooth, with a faint longitudinal depressed line near the sutura; inferior parts of the body, mouth, and legs of a brilliant brown; abdomen and tarsi red.

Adelaide.

Variety.—The red colour covering more than the posterior half of the elytra.

Melbourne.

All the sorts we have seen are brilliant and shiny, the following are more or less rugose; in this division comes *Cylindricus* (Chaudoir), which is not from Melbourne, as stated by that author, but from Adelaide.

*Adelotopus Obscurus*: length  $2\frac{3}{4}'$ ; brown, obscure, entirely covered with rugosities; very much like *Ipsoides*, but shorter, the rugosities much stronger and extending over the axillary angle and the basis of the elytra; the longitudinal striæ of the latter much less marked; the under side of the body, mouth, antennæ and legs of a brilliant reddish brown.

Sydney.

Variety; elytra of a light brown with a dark-coloured margin.

Sydney.

*Adelotopus Bicolor*: length  $2\frac{1}{2}'$ ; entirely covered with a fine granulation; body moderately elongate, rather broad, with its sides parallel; thorax broad and transversal, with a rather wide lateral margin obliquely truncated at its anterior angles; a very slight transversal depression near its posterior margin; elytra covered with punctures, rather glossy and showing very faint longitudinal striæ; their colour is of a light yellowish brown, with their posterior part and their lateral margin almost black; mouth and inferior parts of the body of a light yellowish brown.

From the Loddon River, Victoria.

#### *Ozenidæ.*

This family is almost wanting in Australia, being only represented by *Mystropomus*, of which one single species has been described. A second one figures in my collection.

*Mystropomus Chaudoiri*: length 5'; the form is like *Subcostatus*, but much smaller; the thorax is narrower in its posterior part; the elytra shorter, with a faint longitudinal costa between the four larger ones; this insect is black, with the lower side of the body, the parts of the mouth, antennæ, and legs, of a dark reddish brown.

From the Clarence River.

#### *Ditomidæ.*

The only Australian representative of this group, so numerous in Europe, belongs to the little genus *Apotomus*, which had been considered as entirely confined to the European and African shores of the Mediterranean, but I have found a sort at Bangkok (Siam), and another from Madras in my collection.

Mr. McLeay, jun., mentions that a sort of *Apotomus* has been found at Picton, but he has not described it, and so I cannot say if it is the same as the following—

*Apotomus Australis*: length  $1\frac{2}{3}'$ ; a little smaller than *Rufus*, but very much of the same form, a little less elongated; the sulcate on the thorax perhaps rather deeper; of a reddish brown, with the elytra of a dark colour, often almost black; they are very strongly punctato-striated and pubescent; parts of the mouth, antennæ and legs of a yellow brownish colour.

Rather common round Melbourne.

Note.—In some specimens the base of the elytra is of a lighter colour.

I have received from Rockhampton several specimens of this same insect.

*Apotomus Novæ Hollandiæ*: length  $1\frac{2}{3}'$ ; very much like the precedent, but much more elongated; elytra longer; the entire insect is of a light brown with the legs yellow. The punctures of the striæ on the elytra not so deep.

Rockhampton.

### *Morionidæ.*

This family seems to be extensively represented in Australia. I cannot help thinking that *Mazareus*, for all it has not the antennæ of *Morionidæ*, would be better placed here than anywhere else.

### HYPERION.

The gigantic insect, which alone constitutes till this day this genus, was first described by Schrebers in the "Transactions of the Linnean Society" under the name of *Scarites Schræberi*. Mr. Boisduval proposed most properly to separate it from the latter genus, and gave this new generic division the name of *Heteroscelis*; but this designation having already been applied to a genus of *Hemiptera*, I proposed ("Natural History of the Articulated Animals") to change it to *Hyperion*. Since then Mr. Westwood, in his "Arcana Entom.," has proposed the name of *Campylocnemis*.

Mr. Lacordaire, in his genera, has adopted this last name, *Hyperion* being, he says, too near *Hyphæreon*—a name given by MacLeay to a genus of *Carabidæ*, that nobody knows anything about. It is evident that a name cannot be altered because it looks rather like another (for all it is pronounced quite differently), and so my name being the oldest has to be maintained.

This magnificent insect is very rarely met with; it lives in families of twelve to fifteen individuals. One of these

groups was found a few years ago in Victoria under a fallen tree, and another more recently in New South Wales.

## MORIO.

*Morio Australis*: length 7'; of a glossy black; form elongated; head decreasing behind the eyes, but not in an abrupt way; thorax a little longer than broad, narrower behind with its anterior angles acute; it is marginated laterally, sulcated longitudinally on its centre, and bi-impressed on its posterior part; its surface presents faint and irregular transverse striæ; elytra long, parallel, strongly striated; parts of the mouth, antennæ, and legs, of a dark red; the antennæ are hirsute, except on their basilar articles.

Variety.—Of a reddish brown, legs of a lighter colour.

From New South Wales.

Note.—The sort most nearly allied to this is *Monilicornis*, from America.

*Morio Novæ Hollandiæ*: length 5'; very nearly allied to the precedent, but much smaller, still more elongate and parallel; elytra more strongly striated.

Brisbane, Queensland.

*Morio Piceus*: length  $5\frac{1}{2}'$ ; of a glossy brown; thorax rather broader than long; marginated laterally, narrowed behind, with the anterior angles rather rounded; a longitudinal sulcate on the centre; a transversal impression in front and another behind; the latter has a deep impression at each of its extremities; elytra with strong punctated striæ.

Victoria (Mount Macedon). In Dr. Howitt's collection.

Note.—This sort is nearly allied to *Morio Senegalensis*, Dej.

*Morio Victoriae*: length  $8\frac{1}{2}'$ ; this *Morio* is very nearly allied to *Australis*, and it is only with hesitation that I separate them. It is of a larger size; the head is larger, the thorax a little broader, principally behind; the elytra are more deeply striated, and their margin is broader.

One single specimen from Victoria, in the collection of Dr. Howitt.

## CELANIDA.

Mentum largely emarginated, with its centre forming a large, broad, rounded tooth, the lateral wings very large, prolonged, arched, and rounded at their extremity; antennæ

rather short, thick, not longer than the thorax, with the first article moderately large, the second short, the third a little longer than the following, which are short, almost square, compressed, and become broader towards the extremity of the antennæ; the terminal article of an oval form; palpi of both pairs having their terminal article the longest, and of an oval form, rounded at its extremity; mandibulæ rather short, very strong, arched and pointed; labrum very strongly emarginated; legs strong; thighs rather dilated; anterior tibiæ straight, strongly emarginated at their anterior side; tarsi strong, hirsute, the anterior pair having their four first articles triangular, the first being a little larger than the others; head of a triangular form, narrowed behind the eyes in form of a neck; thorax large, rather cordiform; elytra rather depressed, and of an oblong, oval form.

*Celanida Montana*: length 8'; of a dark, glossy brown; thorax large, cordiform, marginated laterally, with the anterior angles rounded; it has a longitudinal sulcate on the middle, a strong impression on each side near the posterior angle, and all its surface is covered with transversal striæ; elytra striated with a faint marginal line of points; antennæ hirsute, except on their first four articles.

From the mountains of Victoria.

Note.—It is not impossible that this genus may correspond to Mr. Westwood's *Melissadera*. It must be in all cases nearly allied to it, and my only reason for keeping it apart is that Mr. Lacordaire gives it as a principal character not to have the posterior part of the head prolonged in form of a neck, which *Celanida* has.

#### MORIOMORPHA.

The insect on which I propose establishing this new genus is most interesting, as forming an intimate link between the gigantic *Hyperion* and *Morio*. Its characters are as follows:—

Mentum deeply emarginated, with its central part rounded and convex; the lateral wings large, pointed, cut obliquely on the interior side, and rounded on the external; antennæ at least as long as the head and thorax united; the first article large, the second very small, the third the longest, the next conical, the others strongly moniliform, rather distant one from the other; the last compressed, oval form, and very pointed; palpi of both pairs with their ter-

minal article long, oval, and rounded at the extremity; mandibulæ strong and arched; labrum transverse and emarginated in front; head rounded, terminated behind by a neck; thorax almost square, rather broader than long; elytra rather depressed, long, and parallel; legs strong; thighs rather dilated; anterior tibiæ curved in their lower part; tarsi of the same pair rather dilated, with their first four articles triangular. This genus is distinct from *Morio* by the form of the anterior legs, and from *Hyperion* by the labial palpi, the antennæ, &c. It has almost entirely the fascies of *Morio*.

*Moriomorpha Victorice*: length  $5\frac{1}{4}$ '; entirely of a light reddish brown; thorax a little narrower behind than in front, with a longitudinal sulcate on the middle, and two strong impressions behind; elytra striated.

From the Dandenong Ranges; one single specimen in Dr. Howitt's collection.

*Moriomorpha Adelaidæ*: length  $4\frac{1}{2}$ '; entirely of a dark, glossy brown; thorax more cordiform than in the preceding, much narrower behind; elytra very strongly striated.

I received this insect from Adelaide; it was sent to me by Mr. Odewahn.

#### MORIODEMA.

Mentum deeply emarginated, without any appearance of a tooth; the lateral wings large, straight internally, rounded on their external side, and terminated by an acute angle; antennæ rather long, nearly the length of the head and thorax united; the first article the strongest, the second small, the third the longest, the fourth conical, the others thicker but shorter, increasing in size, the eleventh oval and pointed; palpi, with their last article in both pairs, longer than the others, elongated and oval; mandibulæ rather short, arched and acute at the extremity; labrum transverse and lightly marginated in front; head rounded, terminated posteriorly by a neck; thorax almost square, rather transverse; elytra rather depressed, long and parallel; legs strong, thighs rather dilated; anterior tibiæ arched, strongly emarginated inside; tarsi of the anterior pair dilated, with their first four articles short and triangular.

This genus has almost entirely the appearance of *Morio*, but is immediately distinguished by its antennæ longer and increasing in thickness towards their extremity; the form of the anterior legs and the mentum without a tooth are

more than sufficient for its separation from it; it is also different from *Moriomorpha* by the form of its mentum.

*Moriodema M'Coyei*: length  $5\frac{1}{2}$ '; of a glossy reddish brown; anterior part of the head black; thorax almost square, rather transverse, nearly as broad behind as before, bordered laterally, with a transversal impression forward and behind, and two strong impressions behind the posterior angles; elytra striated; tarsi with long yellow hair.

Melbourne; very rare.

I have much pleasure in dedicating this curious insect to the learned Professor M'Coy, of the Melbourne University. My collection contains a most curious specimen, in which the antennæ have their last article short, square and emarginated, and the two pairs of palpi ended by a short, square and truncated article. For all these organs are similar on both sides, I suppose their anormal form is only accidental.

*Moriodema Paramattensis*: length 5'; absolutely similar to the preceding, but the thorax much narrower and more cordiform behind than in its anterior part.

One single specimen from Paramatta, in Dr. Howitt's collection.

#### VERADIA.

Mentum broad, transverse, short; strongly emarginated, with the centre of the emargination rounded convexly; wings broad, arched externally, truncated in side, rounded at the apex. Palpi, maxillary, with the first article short; the second long, broad, compressed; the third conical; the fourth long, conical and very pointed. The last article of the labial of the same form. Labrum transverse, not emarginated; mandibulæ rather strong, arched, carinated, pointed at the apex; antennæ rather short; the first article large, the second conical, the third of the same form but longer, the others thicker and shorter, the last oval. Tarsi slender, with first article longer than the others; those of the anterior pair dilated in the male, having their first article very small, the three following broad, triangular, furnished below with squamulæ, the last article slender; the head is small, triangular, narrowed behind in form of a neck; thorax large, broad, transverse, rounded laterally, broader behind than in front; elytra oval, rather large; thighs rather thick; tibiæ straight, slender, armed externally with a line of spiniform hair; anterior tibiæ straight, very strongly emarginated inside; a long and slender spine on the upper edge of the emargination; body thick.

*Veradia Brisbaneensis*: length  $3\frac{1}{4}'$ ; of a dark brown, rather brilliant; head with two punctiform impressions in front; thorax with a longitudinal sulcate and two broad impressions behind; elytra strongly striated with the margin impressed, particularly on its posterior half; legs, parts of the mouth and antennæ brown.

Brisbane.

#### SETALIS.

Mentum very short, transversal, three times broader than long, emarginated, with the centre convex and rounded; the wings of the mentum small, very little advanced, rounded externally and rather pointed at the extremity on their inner side; labrum transverse, emarginated in front; palpi long; maxillary, with their second article long and rather arched, the third conical, and the terminal oval and truncated at the extremity; this same article of the labial broader, more largely truncated, scutiform; antennæ rather long but shorter than the head and thorax united; the first article large, the three following conical and almost equal in length; the others oval, granuliform; the last large and rounded at the extremity; body oblong, parallel, depressed; head triangular, connected with the thorax by a neck; thorax large, depressed; broader behind than in front, rounded on the anterior part of the lateral margins; scutellum triangular, short and transverse; elytra rather depressed, of the breadth of the thorax, oval behind; legs strong, thighs dilated; anterior tibiæ very strong, inflated in their inferior part, having a row of very minute spines on their external side and on the internal a narrow but very deep split; tarsi thick, the anterior with their four first articles triangular; all the tarsi ciliated below.

*Setalis Niger*: length  $5'$ ; black, glossy; parts of the mouth, antennæ and tarsi brown; thorax marginated laterally and in front, having a longitudinal sulcate in the middle and two strong longitudinal impressions on each side at its posterior part; the external much shorter than the other; its surface presents faint transverse striolæ; elytra covered with very deep simple striæ, and a line of punctiform rugosities round the margin; abdomen having a deep punctiform impression on each side of its segments.

Found round Brisbane and on the Clarence River.



## SILTOPIA.

Mentum deeply emarginated, without any tooth ; its wings elongated and acute ; antennæ thick, longer than the head and thorax united, with their first article rather large, the two following small and almost equal ; the others increasing in size, rather compressed and almost quadrangular ; the last thick at its base and pointed at the extremity ; labrum almost square, rather transverse and strongly emarginated in front ; palpi with their second article the longest and arched, the third shorter and rather scutiform, the fourth sunk at the base in the preceding, subulated and obtusely pointed at its end ; mandibulæ large, strong, advanced, strongly arched and very pointed at the extremity ; legs rather strong ; anterior tibiæ straight, but strongly emarginated on their interior side ; anterior tarsi not dilated, with their first four articles triangular ; body depressed ; head triangular, connected with the body by a very short neck ; thorax rather cordiform, narrower behind than in front ; elytra parallel, rounded at the humeral angle, shorter than the abdomen.

*Siltopia Tricolor* : length  $3\frac{1}{2}$ ' ; general colour of a light brown ; head black, and elytra yellow ; thorax marginated laterally, having a longitudinal sulcate in the middle, a faint transverse impression in front, and two strong rounded ones behind ; elytra feebly striated ; antennæ of a rather dark brown.

I have one specimen from the Clarence River, and Dr. Howitt has another from Paramatta.

## TERAPHIS.

Mentum deeply emarginated, with its centre advanced and forming a sort of broad rounded tooth ; the wings large, protruding, arched and rounded at their extremity ; labrum transversal and emarginated in front ; palpi rather long, with the second article long, strong and rather dilated ; the third short and conic ; the last oval, rather inflated and pointed ; antennæ strong, about as long as the head and thorax united ; with the first article long and thick, the second short, the third the longest and conical, the others increasing in thickness till the last ; they are granuliform and oblong, the last rounded at the extremity ; head oblong, narrowed behind the eyes ; thorax large, broad, rounded laterally ; elytra rather broad, oval ; legs

strong, thighs thick; anterior tibiæ straight, but strongly emarginated inside; tarsi with their four first articles triangular; those of the anterior pair rather thicker than those of the others, but not dilated.

*Teraphis Melbournensis*: length  $3\frac{1}{2}'$ ; of a dark glossy brown; thorax rounded and margined on the sides with a longitudinal sulcate on the middle, and impressed transversely in front and behind; two strong, broad and deep impressions near the posterior margin; elytra of an oval form, covered with punctated striæ; legs and parts of the mouth of a dark red; antennæ hirsute except at their basilar articles.

From the Dandenong Mountains, near Melbourne.

*Teraphis Argutoroides*: length  $3\frac{2}{3}'$ ; of a dark glossy brown; generally of a longer form than the precedent; thorax a little longer; elytra almost parallel, laterally rounded behind.

Kiama, New South Wales.

*Teraphis Elongata*: length  $3\frac{1}{4}'$ ; of a rather dark reddish brown, glossy; of a much more elongated form than the two precedent; thorax as long as broad, with its sides rounded in front, but straight at its posterior part; a longitudinal sulcate in the middle, and on each side behind a very deep impression, which externally runs in an oblique direction towards the posterior angle; elytra strongly striato-punctated; legs of a dark orange-red.

From the Mountains of Victoria (Yankee Jim).

### *Scaritidæ.*

This group is almost restricted to the warm parts of the globe, few of its genera extending further north in Europe than the shores of the Mediterranean; its centre of habitation lies between the tropics. Till lately it had been thought almost wanting in Australia, and for a considerable period one single *Carenum* seemed to be its only representative on this continent. Mr. Westwood, however, extended our knowledge of these insects, and brought their number to nearly twenty sorts. Lately Mr. MacLeay, jun., in a series of able papers, published in the "Transactions of the Entomological Society of New South Wales," has described a vast number of new species, and carried the number of the entire group to seventy-eight. I describe here twenty-two new species, and I do not doubt that in a short time the number actually known will be doubled.

*Scarites* is also found in Australia, and I believe the number of species will be soon found to equal in quantity those of India or tropical Africa.

The *Clivinidæ* are also very numerous, but a learned entomologist, Mr. Putzeis, is perhaps, by his long study of them, alone able to make them well known; and I have sent him my collection of these insects.

#### SCARAPHITES.

This form has been separated from *Carenum* by Westwood, and lately Mr. MacLeay, jun. ("Trans. Ent. Soc. of New South Wales") has proposed to divide it in two, leaving under it the sorts having their elytra rounded at the base, and giving the name of *Euryscaphus* to those which have those parts broadly emarginated. This character would in no case be generic, even if it was constant; but the following sort forms an insensible passage between the two, and so all that can be done at the utmost is to form two sections in the genus.

*Scaraphites Heros*: length 20'; of a rather glossy black; head square, with the subocular prominences large and projecting; the back part of the head is smooth, but the anterior part is covered with longitudinal little striolæ; there is a transverse impression forward, and two transverse ones between the eyes; thorax large, broad, marginated, rounded behind, and rather sinuous at its posterior angles; the anterior angles are advanced and rounded, and the anterior margin rather sinuous; on the whole the thorax has the form of a half moon; it has a strong longitudinal sulcate in the middle, a rather faint transverse impression backwards, and two others rounded towards the posterior angles; on its posterior part it is marked with short transverse striolæ; elytra large, rather depressed, oval, broader than the thorax, rounded at the humeral angles, subtruncated at the base; their surface is marked by very feeble longitudinal striæ; a row of points border the margin, and a series of stronger but distant ones follow the entire length of the elytra at some distance from the latter; on the posterior part of the elytra there is also a short longitudinal line of four points at no great distance from the sutura. The anterior tibiæ have a line of very strong points, and their exterior margin presents three strong teeth.

This beautiful insect was found by Dr. Martin at Champion Bay, West Australia.

*Scaraphites Howittii*: length  $18\frac{1}{2}'$ ; of a shiny black; head square, with subocular advances moderately prominent; two deep longitudinal impressions between the eyes, diverging in front toward the anterior angles: on the space left laterally between these impressions and the base of the labrum there is on each side a deep puncture; the head is smooth with a few longitudinal striolæ near the impressions; thorax of a semilunar form, transversal, with a broad lateral margin; the anterior angles prominent; in front it is rather sinuous; on its centre is a longitudinal sulcate, and a very feeble depression is seen over the posterior angles; the entire surface is covered with feeble transverse striolæ; elytra large, broader than the thorax, rounded, and convex; truncated anteriorly; covered with numerous longitudinal lines, the intervals of which are rather elevated; a marginal line of punctures; a line of deep points on the anterior tibiæ, and their external sides armed with three teeth, the upper much smaller than the lower, and surmounted by one or two others very minute; the tibiæ and tarsi covered with brown hair; the elytræ have a rather purple tinge on their margin.

From Port Augusta, South Australia. Dr. Howitt's collection.

*Scaraphites Affinis*: length  $12\frac{1}{2}'$ ; very nearly allied to the precedent but smaller; thorax broader in its posterior portion, which is the widest; elytra not so broad, more oval form, and strongly striated, particularly on their posterior parts, where they are distinctly punctured; the marginal row of punctures only extend to the first half of the elytra.

Found by Mr. A. W. Howitt at Cooper's Creek. Dr. Howitt's collection.

*Scaraphites Carbonarius*: length  $15\frac{1}{2}'$ ; of a deep black, with a light shiny tinge; head large, square; the subocular prominences small; between the eyes are two longitudinal impressions, which diverge forwards towards the anterior angles; a deep point on each side between these impressions and the base of the labrum; thorax transversal, marginated, rather semilunar, but having the posterior angles slightly marked; the anterior angles advanced; a longitudinal sulcate extends on the centre, and a very slight transverse impression appears backwards; faint transverse striolæ are seen on the surface of the thorax, and a few longitudinal ones on its anterior part; elytra truncated at the base, oval form in the remaining, about as broad as the thorax at the

anterior part, and growing narrower towards their extremity; they have a lateral margin, and their axillary angles are carinated; a feeble marginal row of points extends to this extremity. To the naked eye they appear smooth, but not brilliant, and with a lens very faint punctured striæ are seen more visible on the sides; anterior legs rather slender, with two strong teeth on their external side, surmounted by three other very minute ones.

From Cooper's Creek. In Dr. Howitt's collection.

This sort is very nearly allied to *Scaraphites Lucidus* of Baron Chaudoir ("Magas. de Zoologie"), but the elytra of *Carbonarius* are more elongate, and not inflated in the middle.

The group to which Mr. MacLeay, jun., gives the name of *Euryscaphus* includes at this moment the following species:—*Angulatus*, *Dilatatus*, *Minor*, *Bipunctatus*, *Waterhousei*, and *Obesus* (MacLeay, jun.), *Lucidus* (Chaudoir), *Howittii*, *Affinis*, *Hopei*, and *Carbonarius*, here described; in all eleven species. *Lucidus* is erroneously stated by Chaudoir to be found near Melbourne; it is from the Murray. Two specimens are in my collection from that locality. I have also obtained lately a specimen of *Waterhousei* from Nickol Bay on the western coast of Australia. Mr. Waterhouse had found the one, which has been described by Mr. MacLeay, in the centre of the continent. This magnificent insect bears a remarkable resemblance to the African *Manticora*.

As I have already stated, *Sc. Heros* forms a passage between the two groups. It comes also near to *Carenum Tuberculatum* of MacLeay, jun.

*Scaraphites Hopei*: length  $14\frac{1}{2}'$ ; the smooth elytra of this insect, and the impression of the head without striolæ, only allows it to be taken for *Lucidus* or *Minutus*, but in both of the latter the elytra are nearly circular; while in *Hopei* they are oblong and rather prolonged behind; the mandibulæ are very acute; the thorax rounded behind; the humeral angles rounded, and not advanced; the elytra when seen with a magnifying power show four very faint striæ towards the sutura. The colour of the only specimen I have seen is of a light brown, probably from not being mature.

It was found by Mr. Waterhouse in the centre of New Holland, and sent to me by that gentleman.

*Scaraphites Humeralis*: length 15' to 18'; black, generally very brilliant; head large, square, with two large

impressions between the eyes ; these impressions expand considerably at their anterior part ; the protuberances below the eyes not very considerable ; the thorax transverse, marginated laterally, with the anterior angles rounded ; the posterior part much narrower, with the sides rather sinuous, which gives it a cordiform appearance ; it has a longitudinal striæ in the centre, a transverse impression forward, and another backward ; on the latter are two longitudinal impressions ; elytra oval, oblong ; the lateral margin forming a sort of carina at the humeral angles ; a line of impressed points follow the margin in almost all its length ; the surface presents very faint longitudinal lines, rather elevated ; in some specimens fine isolated straight brown hair are dispersed on the posterior part of the elytra ; the anterior legs are tridentated ; the first of the teeth only rudimentary ; the other tibiæ having long brown hair ; the intermediate pair with two teeth on their external side ; they appear long, thick, and very acute ; the largest of the inner ones long, slender, and curved.

This insect inhabits Swan River.

The following sorts are real *Scaraphites* :—

*Scaraphites Gigas* : length 23' ; entirely black and rather glossy ; labrum and anterior part of the head covered with short longitudinal rugosities ; a transverse impression in front of the eyes, and two longitudinal ones between them ; a strong protuberance on each side of the head below those organs ; thorax transverse, emarginated in front ; the lateral sides marginated, narrowing in their posterior part, and presenting a strong sinuosity behind the posterior angles ; anterior angles advanced and rounded ; the surface is covered with faint lines, which are longitudinal towards the anterior margin, but transverse and sinuous behind ; these markings are stronger on the sides than towards the centre ; on the middle of the thorax extends a rather deep longitudinal sulcate ; elytra oblong, rather narrower than the thorax ; their humeral angles rounded, their sides almost parallel ; they have a broad and deep margin on their anterior part, but which is very faint towards the posterior part of the elytra, and is bordered interiorly by a row of impressed points ; the entire surface is covered with rugosities, and marked with several feeble longitudinal punctated striæ ; the under side is glossy, but covered with fine impressions ; the anterior tibiæ have three very strong teeth on their exterior side.

From Nickol Bay, on the north-west coast of New Holland.

Note.—This insect by its great size can only be taken for *Bacchus* (which is unknown to me), but is very distinct by the form of the elytra, &c.

*Scaraphites Martinii*: length 14'; in general form it resembles very much *Rotundipennis*, but the thorax is broader and more rounded backwards, it has a broader lateral margin, and two strong impressions are seen on the posterior angles; the entire body is more smooth; the colour is black, but not very brilliant; elytra marked with very faint longitudinal striæ; on their margin extends a line of punctures, and behind it a series of seven or eight points much larger, and disposed on a longitudinal line beginning behind the humeral angle; on the posterior part of the elytra, and towards the middle of their breadth, are on each two punctiform impressions situated one below the other; the anterior tibiæ have three very strong teeth; the tibiæ and tarsi covered with reddish hair.

Found by Dr. Martin at Champion Bay.

Note.—*Scaraphites MacLeayi*, of Westwood, seems to me to be identical with *Rotundipennis*, of Dejean. Dr. Howitt has in his collection a specimen, given to him by Mr. MacLeay, jun., which presents no differential characters. The one given by that entomologist himself, and based on the number of the points extending along the margin, is entirely without value. *Rotundipennis* presenting in some instances from eight to nineteen of these impressions; much more, the numbers on the two sides of the elytra are often different, and so I find 13 and 14, 8 and 9, 10 and 11, 14 and 10; and the typical specimen of *MacLeayi*, I have just mentioned, presents a similar case, having nine on one side and ten on the other. *Intermedius* of the same author seems, from his description, only to be founded on a similar character, and in that case ought also to be united with *Rotundipennis*; the strong rugosities of the front part of the head, and the glossy appearance of the body being frequently observed in specimens of the common sort of Melbourne *Rotundipennis*.

#### CARENUM.

The following sorts appear different from all those described by Mr. MacLeay:—

*Carenum Brisbaneensis*: length 8½'; black, not very brilliant, having more or less a bronzed tinge; head having

between the eyes two arched grooves, united posteriorly by a curved and transverse impression, all the space between these lines being elevated; thorax rather square, a little broader than long, slightly marginated laterally, with the sides almost straight; the posterior angles rounded; the surface of the thorax presents transversal striolæ, and it is marked in the middle by a longitudinal sulcate, and at its anterior and posterior sides by two faint transversal impressions; elytra oval, with the axillary angles rounded; they are slightly marginated laterally, and present each two strong punctiform impressions on the middle of the breadth, one towards the fourth of the length, and the other at its three-fourths; faint marks of longitudinal striæ can be seen, with a magnifying power, on the surface; anterior tibiæ with two strong teeth on their external side.

Several specimens were found by Dr. Howitt near Brisbane; one was kindly placed by him in my collection.

*Carenum Ebeninum*: length  $9\frac{1}{2}$ '; of a rather dull black; head with two longitudinal grooves curving transversely behind the eyes; thorax transversal, rounded behind, rather sinuous at the place of the posterior angles; marginated all round, with a deep longitudinal sulcate in the middle, and two transverse impressions, one in front and the other behind; elytra of an oval form, not broader than the thorax, having marks of very faint longitudinal puncturated lines, and presenting two rather deep punctiform impressions on each elytron, one at some distance behind the axillary angle and a little nearer the margin than the sutura, and the other a little past the two-thirds of the whole length; anterior legs with two large teeth, surmounted by three others very small.

I received one specimen from Mr. Odewahn, of South Australia, found near Gawler.

*Carenum Carbonarium*: length 11'; of a rather dull black; head large, with two deep sulcates between the eyes, they run rather obliquely, and diverge in front towards the anterior angles of the head; thorax broad, transverse, semilunar, rather sinuous behind, marginated, and presents a strong longitudinal sulcate in its middle, and a rather faint transversal impression in front; elytra not quite as broad as the thorax, marginated, of an oval form, with the axillary angles pretty well marked; their surface is covered with very faint longitudinal lines too feeble to be called striæ, and they present towards their posterior part a very feeble punctiform



impression; the anterior tibiæ are armed with two strong teeth, surmounted by two others very minute.

From Esperanza Bay, on the south coast of Western Australia.

*Carenun Superbum*: length 15'; of a dark bronzed and glossy black, with the sides of the thorax and elytra of a beautiful metallic green; head large and rounded, with two deep oblique and rather sinuous impressions between the eyes; they diverge in front towards the anterior angles of the head; on the space left between these and the base of the mandibulæ there is on each side a punctiform impression; thorax almost round, emarginated in front; it is marginated laterally and behind, it has a longitudinal sulcate, a transverse impression in front, and two elongated ones at the plane of the posterior angles; elytra oval, rather broad at the base, and narrowing constantly towards the extremity; they are rather depressed, and covered with longitudinal striæ formed with large punctures; these punctiform impressions more numerous and irregular towards the sutura; anterior tibiæ armed with two strong teeth on their exterior side; underside of the body black; tibiæ and tarsi rather brown.

This beautiful insect, from the Lachlan, is in Dr. Howitt's collection.

Note.—This insect has almost entirely the form of *Carenum Gagatinum*.

*Carenum Amabile*: length 8'; so much like *Superbum* that it might be taken for it, but smaller; elytra a little more cylindric, and not so broad at the base; on the elytra longitudinal lines rather elevated, but without punctures; two punctiform impressions on each elytra, one behind the humeral angle, and the other on the posterior part; legs and antennæ of a brownish red.

Also from the Lachlan, and in Dr. Howitt's collection.

*Carenum Multiimpressum*: length 7'; of a shiny black; general form elongate; head with a deep transversal impression behind the eyes, and two longitudinal ones between them, these latter diverge in front towards the anterior angles of the head; the intervals between these lines are elevated; thorax rather broader than long, the anterior angles protruding and pointed, the sides parallel, rounded, marginated, and sinuated behind the place of the posterior angles; the posterior margin truncated; there is a deep longitudinal sulcate on the centre, and a strong and deep impression at

each of the four angles, the two anterior ones rather oblique ; the elytra long, rather parallel, not broader than the thorax, rather convex, marginated laterally, with the axillary angles pointed ; they are bordered by a puncturated marginal line, and they present on the middle of their breadth a longitudinal series of five large and very deep rounded impressions ; these impressions do not appear to be very regular, my specimen having on one of its elytra two other similar on the posterior part, placed between these and the sutura ; the front tibiæ are armed with three strong teeth.

Swan River.

*Carenum Westwoodii* : length  $9\frac{1}{2}'$  ; this sort is very nearly allied to *Bonellii*, in fact it is only distinguished by the elytra being a little narrower and rather strongly punctato-striated ; these striæ are very strong near the sutura, and very feeble towards the external margin ; the colour is also much darker, and almost black on the head, the middle of the thorax, and the centre of the elytra.

From Mount Kosciusko.

Note.—It is impossible for me to find any difference between *Bonellii* and *Viridipenne* of Westwood, and I believe them to be very slight varieties of the same species.

*Carenum Splendens* : length  $10\frac{1}{2}$ – $12'$  ; very nearly allied to *Coruscum*, and of the same form ; body of a beautiful blue, with a purple tinge ; thorax and elytra with a fine metallic green margin ; thorax with a strong longitudinal sulcate in its middle ; elytra with seven very strongly punctured longitudinal striæ, amongst which appears the punctiform impression of the posterior part of the elytra ; along the margin are rows of very strong, oblong impressions ; anterior legs tridentated externally ; inferior parts of the body, head, antennæ, parts of the mouth, and legs, black.

From Port Denison.

Note.—In one of my two specimens the elytra have posteriorly a greenish tinge. This sort can only be taken for *Coruscum*, but is very distinct by its general colour, the much stronger striæ of the elytra, &c.

*Carenum Smaragdulum* (West. "Arc. Ent.," v. i., p. 84) : length  $7\frac{1}{2}'$  ; of a beautiful metallic green, having a bluish tinge ; margin of the thorax and elytra much more brilliant and gilt ; a marginal row of large elevated points around the elytra.

From Swan River.

*Carenum Odewahnii*: length  $10\frac{1}{2}$ – $13'$ ; this insect has been taken by Mr. MacLeay, jun. ("Trans. Ent. Soc. of New South Wales") for *Smaragdulum*, but it is easily distinguished by its much larger size, its elytra still more rounded at the humeral angles, and by the punctures of the marginal row of the elytra being much smaller, more regular and more numerous; the punctiform impressions of the posterior part of the elytra are much less deeply marked; the teeth of the anterior tibiæ are larger.

Found by Mr. Odewahn near Gawler, in South Australia.

*Carenum Coruscum* (MacLeay, jun., "Trans. Ent. Soc. of New South Wales," part ii., p. 141): specimens of this fine insect were brought by Mr. Hubert from the Paroo River, and are in the collection of Dr Howitt and in my own.

Note.—*Carenum Marginatum*, Germar ("Linnæ. Entom.") from Adelaide, is probably *C. Lævigatum* (MacLeay, jun.), the true *Marginatum* not being found in South Australia.

*Carenum Schomburgkii*: length  $8\frac{1}{2}'$ ; this insect is very nearly allied to *Lævigatum*, and is only distinguished from it by its elytra being a little more elongated and covered with transverse striolæ. It may possibly be a simple variety.

South Australia.

*Carenum Devastator*: length  $16\frac{1}{2}'$ ; of a rather brilliant black; head large, smooth, with two longitudinal impressions between the eyes, diverging in front towards the anterior angles of the head; on the space left between these impressions and the base of the mandibulæ are two punctiform impressions, one on each side; thorax broader than long, emarginated in front, with the anterior angles protuberant; the sides, which are marginated, are almost parallel, rounded at the posterior angles, rather sinuous behind them; it is truncated and marginated behind; it has a longitudinal sulcate on its centre, a transverse arched impression in front, and two rounded impressions behind; on its surface are seen very faint transverse striolæ; elytra long, oval, of the breadth of the thorax, marginated laterally, truncated at the base; the axillary angles are well marginated, and rather acute, their surface is smooth, and they present each two punctiform impressions, one behind the axillary angle and the other backwards; the general form of the body is elongated, and the aspect is that of a *Scarites*.

From Swan River.

*Carenum Atronitens* (MacLeay, jun., "Transactions Ent. Soc. of N. S. Wales"): length  $11\frac{1}{2}'$ ; of a brownish black; general form long and elongated, with the sides parallel; head with two longitudinal impressions between the eyes; they are sinuous, and diverge in front towards the anterior angles of the head; thorax longer than broad, marginated all round, emarginated in front, with the sides parallel; the posterior angles are rounded, and the posterior side is rounded and rather sinuous in its centre. There is a longitudinal sulcate in the centre, and transversal impressions in front and behind; an impression is visible on the anterior angles; elytra long, same breadth as the thorax, sub-parallel, marginated laterally; their base is emarginated, and the axillary angles prominent; their surface is smooth to the eye, but presenting a few very faint longitudinal elevated lines when seen with a magnifying power; they have each two faint punctiform impressions, one behind the axillary angle, and the other at their posterior part; anterior legs armed with two very strong teeth.

This insect comes from Gawler, in South Australia. I believe it to be the *Atronitens* (MacLeay, jun.), but the description does not exactly agree with it.

#### NEOCARENUM.

Mentum armed in its centre with a long, acute, and carinated spiniform tooth; its wings very long, advanced, narrow, arched, and rounded at the end; palpi—the maxillary ended by one article, long, narrow, arched, and rounded at its extremity; the same of the labial, rather longer than the preceding, conical, but rather, arched; maxillæ rather narrow, arched, and densely hirsute internally; mandibulæ strong, arched, pointed at the extremity, and armed on their internal side with several strong teeth; labrum short, and having several denticulations; antennæ short, strong, getting thicker as they go towards their extremity; the two first articles are strong and conical, the third also, but rather shorter, the others almost round, not compressed, the last rather pointed; body long, cylindrical, filiform; head almost square; thorax longer than broad, joined with the body by a peduncle, on which is situated the scutellum; elytra long, parallel; legs rather short; thighs inflated; anterior tibiæ palated; those of the other pairs crenulated on their internal margin.

This singular genus, in some respects, unites *Carenum* with

*Eutoma*; it has the long cylindrical form of the latter, but is very distinct from both by the form of the palpi.

*Neocarenum Singularis*: length 13'; of a dull black; longitudinal grooves of the head sinuous and diverging in front towards the anterior angles of the head; thorax long, with the sides parallel, rounded behind, rather sinuous in front, it is bordered, has a longitudinal sulcate in the middle; there is a faint depression at the anterior angles, and a strong one at the posterior; elytra of a very long oval form, almost parallel, tolerably narrower in front than at their posterior part; the humeral angles are well margined and pointed; a line of widely parted points follows the internal side of the margin, and a series of very large punctiform impressions extends laterally in a longitudinal line at some distance from this margin; the anterior tibiæ are bidentated.

Swan River.

*Neocarenum Kreusleri*: length 13½'; very much like *Singularis*, but of a brilliant black; thorax rather broader in front than behind; elytra having the same markings, and in addition a strong punctiform impression behind, towards the middle of the breadth; teeth of the anterior tibiæ very long and acute.

From Gawler, South Australia. I dedicate it to Mrs. Kreusler, a German lady, who devotes her time and great abilities to the study of the Entomological Fauna of her adopted country.

#### EUTOMA.

This genus of Newmann has not generally been admitted, but it appears to be very distinct from *Carenum* by its long linear general form, its palpi very securiform, its antennæ increasing in thickness from the base to the end; the thorax is always longer than broad; the anterior thighs dilated and like emarginated below. *Carenum Violareum* of MacLeay ("Trans. Ent. Soc. of N.S.W.") must also be placed here, as probably also *Megacephalum* of Westwood.

Before entering into the description of the new sorts of this genus contained in my collection, it is necessary to be certain of the sort (*Tinctillatum*) on which Newmann has established his genus *Eutoma*. This I find very difficult to ascertain in insects so nearly allied as are the different species. His insect is said to be black, with the sides of the elytra blue. This only applies to a specimen I received from

the Clarence River, and of which I think advisable to give here a short description.

*Eutoma Tinctillatum* (New., "Ent. Magas." 5, p. 171) : length 8' ; shiny black ; head with its longitudinal grooves beginning a little behind the posterior part of the eye, running obliquely and curving in front towards the anterior angles of the head ; thorax with the sides parallel, rounded behind, and marginated ; a longitudinal sulcate in the middle, a transverse impression in front, strongly marginated at its extremities ; one punctiform impression on each posterior angle ; elytra smooth, with the sides of a dark blue ; a punctiform impression on their posterior part, and an irregular impression on the humeral angle ; underside of the body black ; anterior tibiæ with two very strong teeth.

Clarence River.

*Eutoma Episcopalis* : length 11' ; black, brilliant ; thorax, and particularly elytra, of the most magnificent purple ; longitudinal grooves of the head extending behind the posterior side of the eyes, they are oblique, and diverge in front towards the anterior angles of the head. The space between these grooves and the base of the mandibulæ bears on each side a punctiform impression ; thorax long, with its sides parallel, rather sinuous, rounded at the posterior angles, and a little sinuated behind ; it is marginated on its lateral and posterior sides, and has a slight impression on each of the anterior angles ; elytra of the breadth of the thorax, parallel, marginated, perfectly smooth, with a deep punctiform impression backwards, and an irregular one on the axillary angle ; tibiæ with brown hair, the anterior armed with two very strong teeth ; antennæ long, compressed.

From the Paroo River, in the central part of the Continent.

*Eutoma Newmanni* : length 8½' ; very nearly allied to *Tinctillatum*, but with its head larger ; the fascial grooves a little more extended backwards ; the thorax covered with transverse striolæ, and having no anterior impression ; elytra a little broader, of a fine purple, smooth to the eye, but when seen through a lense having faint longitudinal lines of small transverse impressions ; legs, parts of the mouth, and basilar articles of the antennæ brown.

From Port Denison.

*Eutoma Filiforme* : length 8½' ; long, linear ; head with

the two longitudinal grooves extending to its posterior part, where they deviate externally behind the eyes; their general direction is oblique; in front they also deviate towards the anterior angles of the head; a punctiform impression is seen on each side behind the eye; thorax longer than broad, a little wider in front than behind, the posterior angles rounded; in its centre extends a longitudinal sulcate, and an impression is seen behind the four angles, its border is very narrow; elytra long, covered with longitudinal lines of transverse points, with a punctiform impression behind and an irregular one on the axillary angle (the fore tibiæ are missing in my only specimen); the insect is black and shiny; thorax with a cupreous tinge, and elytra of a dark metallic green.

From the Darling River.

*Eutoma Purpurata*: length 9'; of a beautiful dark purple, more brilliant on the elytra; the longitudinal grooves of the head oblique, extending to the height of the posterior part of the eyes, diverging in front towards the anterior angles of the head; a small punctiform impression just behind the eyes; thorax longer than broad, with its sides parallel, rounded behind; it is rather bisinuated on its posterior margin; it is covered with faint transverse striolæ; it has a longitudinal sulcate on the middle, a linear, transverse and oblique impression on the anterior angles, and a rounded and very faint one behind on each of the posterior angles; these latter are joined by a transverse one; the thorax has a narrow border on the sides and behind; elytra smooth to the eye, but when seen through a magnifying power they show longitudinal lines of very faint transverse points; they are margined on their posterior part with a deep punctiform impression, and on the axillary angle with an irregular one; their anterior tibiæ are armed with two very strong teeth; the antennæ are hirsute, except on their first articles; the palpæ are purple, with their ends orange.

Adelaide; received from Mr. Odewahn.

*Eutoma Lævis*: length  $6\frac{1}{2}'$ ; of a brownish purple; elytra of a magnificent bluish purple; legs red; parts of the mouth and antennæ of the same colour; longitudinal grooves of the head rather oblique, ending behind the eyes by a short line, which extends to the latter; in front these grooves expand towards the anterior angles of the head; a very faint punctiform impression just behind the eyes; thorax longer than broad,

with its sides parallel, and the posterior angles rounded; it has a longitudinal sulcate in the middle; it is bordered behind, and has an impression on each angle, the front ones transversal, and the others joined by a transverse one; elytra bordered, smooth, with a punctiform impression behind, and an irregular one on the humeral angle; legs red; the anterior tibiæ armed with two very strong spini-form teeth; antennæ hirsute, except on their first articles; lower part of the body and abdomen of a brownish red; the extremity of the palpi is slightly orange colour.

From New South Wales, Eastern Creek.

Note.—This insect is in most Australian collections under the name of *Tinctillatum* of Newmann, but this naturalist's description does not agree with it.

*Eutoma Loddonensis*: length 8'; long, narrow, cylindric, of a rather dull black, with the sides of the thorax and elytra of a beautiful purple; two sulcates between the eyes, diverging behind these organs, as they do also in front towards the anterior angles of the head; a punctiform impression behind the eye; clypeus dentated; thorax long, with the sides parallel, but slightly inflexed inside towards their middle; it has a longitudinal sulcate in the middle, a transverse impression behind, another very faint impression at each angle; the elytra are long, smooth, bordered laterally with a punctiform impression behind, and several irregular ones on the humeral angle; the thighs are inflated; anterior tibiæ strongly bidentated.

From the Loddon River; in Dr. Howitt's collection.

Note.—This sort is nearly allied to *Newmanni*, but very distinct by its more elongated form; the elytra much longer the different form of the thorax, &c.

#### SCARITES.

I am told that Baron Chaudoir has formed on the Australian *Scarites* a genus *Geoscaphus*, but I don't know its characters. His *Levissimus* would also appear to be Mr. MacLeay's *Jacksoniensis*?

The Australian *Scarites* are very little known, but appear to be numerous. Most of them inhabit the central parts of the continent. Mr. MacLeay ("Trans. Ent. Soc. of N.S.W.") mentions eight sorts, which, with the six here described, make the actual number known to be fourteen. Of these, twelve are in my collection.



*Scarites Substriatus*: length 11'; elongated, of a shiny black; head having between the eyes two longitudinal grooves, which unite together in front; thorax almost square, rather transverse; the posterior angles are rounded; there is a longitudinal sulcatè in the middle, a faint transverse impression in front, this is only well marked at its extremities, and two deep punctiform impressions on its posterior part, one behind each angle; on its surface are seen very faint transverse striolæ; elytra rather depressed, with longitudinal ridges but no distinct striæ; on the posterior part of each striæ are two punctiform impressions, situated one behind the other; front tibiæ armed with three teeth, the first much smaller than the others.

From the Darling River.

Note.—This sort can only be taken for *Subporcatus* of MacLeay, jun., but is very distinct by the markings of the head.

*Scarites Plicatulus*: length 12'; of a brilliant black; forehead with four longitudinal grooves between the eyes, the external extending to the back part of the head by a sinuous line, in front they diverge towards the anterior angles of the head; on the space extending between the grooves and the base of the mandibulæ is a series of longitudinal and deep striatulæ; thorax almost square a little transverse, rounded behind, margined all round, having a deep longitudinal sulcate in the middle and an impression at each angle; these at the anterior angles being oblique and at the posterior longitudinal; elytra not very convex, almost smooth, with very faint longitudinal ridges, and two punctiform impressions on the posterior part, one behind the other; anterior legs tridentated, the upper tooth smaller than the others.

This insect comes from Escape Cliff, in the Northern territory, and was given to me by Dr. Mueller.

*Scarites Mitchellii*: length 12½'; elongated, subcylindrical of a rather shiny black; head with two longitudinal impressions joining in front and of a rather triangular form; thorax almost square, rather transverse, margined all round with a feeble sulcate in the middle and a faint impression at each angle; the surface is covered with feeble transverse striolæ; elytra covered with weak longitudinal striæ formed of punctiform impressions; they present a strong puncture behind a faint impression on the humeral angle; anterior tibiæ armed with three teeth, the first very small.

From the Darling River. Named in honour of the celebrated Australian explorer.

*Scarites Bostockii*: length 10'; elongated, subcylindrical, of a shiny black; head rather corrugated in front, with two longitudinal grooves between the eyes; these grooves diverge in front towards the anterior angles of the head; thorax transverse, marginated, rounded at the posterior angles, bilobed behind, with a longitudinal sulcate in the middle; a transverse impression in front, and two very faint longitudinal ones behind; elytra rather depressed, with very faint longitudinal lines on their surface, and two punctiform impressions behind, these are situated one behind the other; anterior tibiæ armed with three teeth, the upper of which is the smallest.

Received from the Rev. Mr. Bostock. It comes from Nickol Bay, on the north-western coast of Australia.

*Scarites Ruficornis*: length 10½'; of a very brilliant black; head with its front part and labrum dentated; the longitudinal grooves are rather short, and as usual diverge in front towards the anterior angles of the head; thorax broader than wide, with the posterior angles rounded; it has a longitudinal sulcate in the middle and an impression at each angle, the anterior being transverse; elytra rather short for the genus, smooth (with a strong magnifying power a few faint striæ are seen, particularly on the posterior part), with two punctures on the posterior part of each elytra; anterior tibiæ tridentated, the upper tooth smaller than the others; antennæ hirsute and of a brownish red; tarsi of the same colour.

This insect seems to have an extensive habitat. I have specimens from the Manning River, and Mr. Howitt found it near Cooper's Creek. In some immature specimens the legs are of a brownish red.

*Scarites Bipunctatus*: length 9'; rather subcylindrical, of a glossy black; head with longitudinal striolæ in front, and having between the eyes two strong longitudinal impressions, the breadth of which increases in front so as to give them a triangular form; thorax rather transverse, with the sides almost parallel; the posterior angles rounded; on the centre is a longitudinal sulcate, in front a slight transverse impression, and on the posterior part two punctiform, rounded and deep impressions; elytra rather long, parallel, very feebly striato-punctated, with a transverse impression

on the base and two punctiform ones on the posterior part of each elytron, one behind the other; antennæ brown.

From Rockhampton. Sent to me by that indefatigable collector Mr. Thouzet.

#### GNATHOXYS.

Of this genus I have only three sorts—all known.

I must observe that *Blissii* of MacLeay jun., (described in the 5th number of the "New South Wales Entomological Transactions") is almost certainly identical with *Granularis* of Westwood, and that the sort figured by Lacordaire under the last name is a very distinct insect, being less than one half the size of Westwood's sort. I believe it to be *Obscurus* of Reich.

All the sorts known to me are from Western Australia.

#### *Panageidæ.*

This family had been considered till lately as almost wanting in Australia; one single species having been described. Mr. Chaudoir has since made known a second, and Mr. MacLeay, junr., a third. I have to enumerate seven sorts.

I just mention here than my Brazilian genus *Dercylus*, which Mr. Lacordaire has placed among the *chlenidæ*, seems to come more naturally among the *Panageidæ*, where I had placed it, as to include it among the first, he is obliged to isolate it, on account of the structure of its palpi, while these organs are of the ordinary form of those of *Panageidæ*.

The larger sorts of *Eudema*, seem to be confined to the warmest parts of Africa and India, and it is interesting to find one, at least, on the north-eastern coast of New Holland.

#### EUDEMA.

This genus has, since I formed it many years ago (1840), been published by Hope under the name of *Craspedophorus*. Mr. Lacordaire, in his genera, has adopted the latter name, in acknowledging that mine is anterior; his reason for doing so is most singular: "because," (he states) vol 1, p. 211, "if we give this name a masculine termination it would have an almost absurd meaning." But what right had he to alter it at all? Probably because most of the other names of the family are masculine, but that reason is much more absurd still, and even in that case, why does he not also, in the

same family, change *Coptia* and *Loricera*. In every family there are, in his book, names of the different genders, and so in the *Scaritidæ* he has *Pasimachus*, *Carenum*, and *Clivina*.

The character which separates *Eudema* from *Panagæus* is to have the anterior tarsi of the male simple and similar to those of the female; all the Australian sorts known to me belong to *Eudema*.

These insects are (with the exception of *Convexa* and *Azurea*) so much like one another that I shall only attempt to give the differences which exist between them.

1. *Eudema Convexa*, of MacLeay, junr., which I have received from Port Denison, is a most distinct insect, having entirely the appearance of the large, broad Indian sorts, its length is over 9'.

2. *Eudema Australis*, of Fabricius: this is the most common Australian sort; its size is about  $5\frac{1}{2}$ '; it is easily distinguished by the orange coloured spots of the elytra, which are proportionately small, and of which the humeral are almost round.

I have it from the south of Queensland, the Clarence River, Sydney, &c.

3. *Eudema Australasica*, of Chaudoir, is of about the same size as the preceding, but the spots are of a dark red and much larger, the humeral more or less square.

From Sydney, Melbourne, the Darling River, and South Australia.

4. *Eudema Alternans*: this is a new sort, being about 7' lines long; it is very much like *Australis*, but much larger, and more elongated; it has the centre of its head perfectly smooth; the thorax is of a pentagonal form; the costæ of the elytra are alternately much larger than the intermediate.

From Rockhampton.

5. *Eudema Rockhamptonensis*: also a new sort; its length is 7'; it comes very near the preceding, but is smaller and broader; the head strongly impressed, but almost without punctures; thorax broader than in *Alternans*, and the sides more rounded, with the lateral border narrower; elytra shorter, with the costæ equal.

Also from Rockhampton.

Note.—In the two last sorts the spots of the elytra are rounded and of an orange colour.

6. *Eudema Elongata*: length  $7\frac{1}{2}$ '; more elongated than the other species; head covered with very strong punctures;

the spots of the elytra rounded and red ; very nearly allied to *Australis*, but the thorax is a little longer, and strong punctures cover the entire head.

Sydney.

7. *Eudema Azurea*: length 5'; general form broad and depressed; head small, impressed on the sides, with the middle smooth and shiny; thorax short, very broad, rounded laterally, the widest part being towards the two posterior thirds of its length, where it forms an angle and proceeds backwards, becoming much narrower, it is very densely punctured, bi-impressed behind, and has a slight longitudinal sulcate in its middle; elytra broad, depressed, entirely covered with a dense puncturation, and striated; lower side of the body very densely punctated; general colour of a dark blue, with the legs red; antennæ, palpi, and tarsi black; the entire body is hirsute.

This is a most distinct species, very remarkable by its absence of coloured spots on the elytra.

From Rockhampton, by Mr. Thouzet; and from Eastern Creek, by Mr. Masters.

#### *Chlœnidæ.*

This family presents a very remarkable geographical fact, as out of the very small number of its representatives in Australia, two are inhabitants of India.

#### HOLELEIUS.

The only known sort of this genus, *H. Nitidulus*, Dej., is found in India, and I have myself collected many specimens of it at Siam, and in the Malayan Peninsula; it is also an inhabitant of Australia, as Mr. Wilcox has lately found it on the Clarence River.

#### CHLŒNIUS.

The Australian sorts known to me are *Australis*, Dej. from Queensland, New South Wales, Victoria, and South Australia; *Peregrinus*, Chaud., from Queensland and New South Wales; it is also found in New Caledonia, and is the *Chl. Viridis* of Montrousier; *Grayanus*, White, from King George's Sound and Swan River. Two others have been described by Mr. MacLeay, junr., from Port Denison, but only one is known to me. Three sorts seem to be new, but one of them is a common insect, and it appears strange that it has not yet been described; this genus presents the rare fact of an

Indian species spread all over the known parts of the Australian continent.

*Chlœnius Marginatus*, Dej. *species*: I see no difference whatever between the Australian and the Indian species; this is most extensively spread over Siam, the Malayan Peninsula, Sumatra, and even Japan. I have taken it myself very frequently in the three first localities.

The Australian insect is also common in almost all the known parts of New Holland; I have it from New South Wales, the Darling River, South Australia, and Swan River.

It is of a metallic green, strongly puncturated on the thorax; with the elytra striated and bordered by a yellow margin; palpi, antennæ, and legs of the latter colour.

*Chlœnius Subcostatus*, MacLeay, junr., "Trans. Ent. Soc., New South Wales." I have received from Rockhampton an insect which I believe to belong to this species; it is very nearly allied to the preceding, but is of a darker colour, almost black, with the intervals of the costæ rather carinated; the antennæ are almost black, except at their three first articles.

*Chlœnius Darlingensis*: length 6'; this insect is so very nearly allied to *Marginatus* as to be, perhaps, only a variety of it. It has the same general colouration, but is broader, the thorax shorter, the elytra wider, more depressed, with their striæ deeper; the antennæ are almost black, with the basal articles yellow.

One single specimen from the Darling River.

*Chlœnius Maculifer*: length 7'; dark copper colour, almost black; covered with a dense and strong puncturation; head of a lighter copper colour; thorax almost circular, with a faint longitudinal sulcate in the middle, and two very feeble impressions behind; elytra striated, with a bilobed orange spot on the posterior part of the elytra, towards the two-thirds of its length; lower parts of the body of a brilliant black; basal articles of the antennæ, parts of the mouth and thighs of an orange yellow; knees, part of the tibiæ, tarsi, and remaining part of the antennæ of a brownish black.

This insect seems to be common on the Eastern coast. I have it from Port Denison, Rockhampton, and various parts of New South Wales. It comes very near to several Indian and New Caledonian species, and also to *Venator* of the west coast of Africa.

*Chlœnius Maculiger*: length 7½'; this insect is very

similar to the preceding, but quite distinct; the general form is more elongated; the head and thorax are of a greenish copper colour, the latter strongly punctured, almost square, transverse, with the sides rather rounded; elytra black, striated, with a transverse square orange coloured spot on the posterior two-thirds of their length; legs entirely black; antennæ and parts of the mouth of a dark brown.

One single specimen was sent to me from Rockhampton by Mr. Thouzet.

#### ODES.

This genus is dispersed all over the globe, but is more particularly numerous in the tropical parts of both hemispheres, and is well represented in Australia. It is not at all certain that it is properly placed among the *Chlaenidæ*; its natural affinities are with *Amara*.

*Odes Australis*, Dej., is a common insect in Victoria and New South Wales; it is easily distinguished by its thorax having an arched impression on each side, and by its red anterior tarsi; the males are more brilliant than the females.

I have found round Melbourne an insect of a light red brown, whose thorax appears a little broader; it may be only a variety of this species.

*Odes Modestus*: length  $4\frac{1}{4}$ '; body rather elongated; dull black; thoracic impressions faint; striæ of the elytra rather faint; antennæ, buccal parts, and legs black; the first entire striæ running obliquely towards the sutura; between it and this organ a very faint abbreviated line is sometimes visible with a magnifying power.

Variety, copper colour.

Melbourne.

*Odes Waterhousii*: length 6'; size and general appearance of *Australis*, body broader, with a copper colour tint; thorax with four impressions towards the posterior margin; elytra striated, the first striæ near the scutellum very short; lower side of the body and legs of a dark brown; all the tarsi black; buccal parts of a rather dark brown.

From Arnheim's Land; sent to me by Mr. Waterhouse.

*Odes Oblongus*: length 7'; oblong, of a dull black; thorax with no lateral impressions, and only two elongated ones near the posterior margin; elytra striated; the first striæ near the scutellum very short; lower side of the body and legs black; palpi and tarsi brown; antennæ of the same colour, with their three first articles variegated with black.

Eastern Creek, New South Wales.

*Oodes Paroensis*: length 7'; oblong, of a dull black; thorax with a feeble arched impression, extending from the middle of the margin to the back part over the posterior angles, and also two faint impressions on the posterior margin; elytra striated, the first striæ very short; lower side of the body of a brilliant black; tarsi, palpi, and antennæ brown; the three basal articles of the latter variegated with black.

From the Paroo river, in the central part of New Holland.

Note.—By the form of the impressions of the thorax this sort comes near *Australis*, but these impressions are much more faint; the size is considerably larger, the form more oblong.

*Oodes Denisonensis*: length  $7\frac{1}{2}'$ ; oblong, depressed, of a dark copper colour; thorax with a light longitudinal sulcate and also two faint impressions on each side of the posterior margin; elytra strongly striated, with the first of the striæ short and formed of punctures; lower side of the body and legs of a brilliant black; antennæ and palpi black.

From Port Denison.

*Oodes Interioris*: length 6'; of a dark copper colour; body oval, rather broad, depressed; thorax rounded laterally, having two impressions on the posterior margin, and one on each side which extends obliquely behind the posterior angle; elytra strongly striated, the first striæ short; lower side of the body and legs of a shiny black; palpi brown; antennæ black, with the basal articles shiny, and the others pubescent.

From Cooper's Creek.

*Oodes Latus*: length 7'; oval form, broad, depressed, of a rather brilliant dark brown; thorax with a faint longitudinal sulcate in the middle; a strong and elongated impression on each side of the posterior margin, and a very feeble transverse impression on the posterior angles; elytra with deep striæ, the first of which is very short; lower side of the body and thighs black; tibiæ, tarsi, parts of the mouth, and antennæ of a reddish brown.

Swan River.

*Oodes Trisulcatus*: length  $5\frac{1}{2}'$ ; of a shiny black; head with a rounded transverse impression in front; thorax with its posterior margin bisinuated; its surface is smooth, with three light longitudinal sulcates on the middle, the two lateral very obsolete; elytra strongly striated, without any short stria near the scutellum; lower side of the body and legs black; palpi and tarsi of a reddish brown; antennæ obscure; hirsute, except on the three basal articles.



## Port Denison.

*Oodes Proximus*: length  $5\frac{1}{2}'$ ; very nearly allied to *Modes-tus*, but having the first striæ of the elytra oblique round the scutellum, the short one being absent as in that species; the palpi and tarsi are red; the antennæ of a dark brown.

## Paroo River.

*Oodes Inornatus*: length  $5\frac{1}{4}'$ ; oblong, elongated, depressed; sides almost parallel; thorax with two rather strong impressions behind, and a very faint oblique one on the posterior angles; elytra striated, the first stria running obliquely towards the scutellum; no short stria near this organ; the entire insect is of a glossy black; tarsi and end of the palpi red; antennæ black.

## Swan River.

*Oodes Convexus*: length  $4\frac{1}{2}'$ ; oval, convex, of a shiny black; thorax with a faint sulcate in the middle, feebly bi-impressed on its posterior margin, and having on each side a curved impression directed towards the interior part of the thorax; it begins at about the first third of the length of the lateral margin, and extends to the posterior part; elytra very convex behind, strongly striated; near the scutellum a very short stria, formed of a few punctures; tarsi, palpi, and antennæ red.

## Victoria, King George's Sound, and Swan River.

*Oodes Bostockii*: length  $5\frac{1}{2}'$ ; of a fine copper colour; body oblong, rather broad; head rather darker than the other parts; thorax smooth, with two feeble impressions on the posterior margin and a very faint oblique depression towards the posterior angles; elytra broad, rather convex, striated; a short stria formed of punctures near the scutellum, and the first entire stria diverging rather obliquely in that part; lower side of the body, parts of the mouth and antennæ black; legs and tarsi of the same colour.

## Nickol Bay, Western Australia.

*Oodes Thoracicus*: length  $5'$ ; oval, broad, smooth; thorax with the middle longitudinal line elevated; it has two very faint impressions on the posterior margin, and on each side a very deep and broad impression running in a curved and oblique way from the anterior angles to the posterior margin of the thorax; elytra broad, curved, strongly striated; all the striæ entire, with only one or two small punctures between the first and the scutellum; anterior tarsi still more dilated than in the males of the other species; the entire

insect is of a light shiny brown, but this colour may alter in more mature specimens.

Swan River.

#### *Licinidæ.*

The only Australian form generally included in this family is, till this day, the genus *Physolæstus*, Chaud., which is very little known to entomologists, but of which I describe here a sort, I believe different from the one on which the genus was formed. I also place here the *Dicrochile*, which have till now been put with *Anchomenidæ*; the total absence of cushions below the anterior tarsi of the male does not allow them to remain in that family, and the general form, particularly in the larger sorts, evidently brings them near to *Licinus*. It is by mistake that Mr. Lacordaire ("Hist. Nat. des Insectes," vol. 1, page 234) says that *Rembus* is found in Australia. I also place near *Dicrochile* a new form from New Zealand.

*Physolæstus Suturalis*: length  $3\frac{1}{2}'$ ; black, rather brilliant; thorax almost square, rather transverse, narrower behind than in front, with the sides rounded; it has a deep, longitudinal sulcate in the middle, with a strong impression on each side near the posterior angles; elytra striated, with a rather broad spot extending all along the sutura, but becoming narrower towards the extremity; mandibulæ and labrum black; palpi, antennæ, extreme margin of the thorax, legs and lower margin of the elytra yellow.

From the Paro River.

#### DICROCHILE.

Two species of this genus are known from New Zealand; Baron Chaudoir has described one Australian sort, under the name of *Brevicollis*, and also, in a most proper way, he includes in the genus the *Rembus Goryi* of Boisduval; the last insect has been lately ("Trans. Ent. Society of New South Wales") described again by Mr. MacLeay, under the name of *Stomatocælus Licinoides*.

*Dicrochile Gigas*: length  $11'$ ; of a shiny black; head large, almost round, very much depressed in front; thorax short, transverse, very strongly marginated in front, rounded with a broad margin laterally; it has a deep longitudinal sulcate in the middle, a strong transverse impression in front, and two very deep longitudinal impressions behind; elytra large, compressed, covered with striæ, of which the sutural one bifurcates towards the scutellum; a line of punctiform impressions on the margin of the elytra, more particularly on their posterior part.

Rockhampton, Brisbane, and Clarence River.

Note.—The elytra have sometimes an irradiated tinge.

*Dicrochile Punctipennis*: length 9'; very nearly allied to *Goryi*, but head larger, eyes more prominent, thorax more cordiform, with posterior angles more prominent; elytra broader, more depressed, with the parts between the striæ flat; the interval between the second and third striæ bears four regular punctiform impressions; the posterior margin of the elytra is very strongly emarginated; the insect is of a dark brown; the elytra are of a dull colour, without any brilliant lustre; the antennæ, parts of the mouth, and legs, are of a reddish brown.

Brisbane.

*Dicrochile Punctato-striata*: length 7'; very nearly allied to *Brevicollis*, but the thorax is much more narrow, and almost square, being not much broader than long; the posterior angles are sharp and elevated; elytra a little longer, with their striæ deeper, with the posterior part very strongly punctated, as is also the margin.

Melbourne.

*Dicrochile Quadricollis*: length 8½'; this sort is also nearly allied to *Brevicollis*, but is of larger size; its head is broader; its thorax is almost square, not being much broader than long; the angles are more prominent, the posterior being elevated; elytra rather longer, but with similar striæ; the impressions of the lateral margin smaller; antennæ, buccal parts, and legs, rather brown.

Mountains of Victoria.

*Dicrochile Mantana*: length 7½'; of a brilliant black; head oval, rather broad; thorax short, transverse, strongly emarginated in front, rounded laterally; it has a strong longitudinal sulcate in the middle, a transverse impression in front, and towards each posterior angle a longitudinal impression bifurcating in front, the internal part extending to three-fourths of the length of the thorax; elytra rather broad, depressed, with their posterior margin very strongly emarginated; they are covered with striæ, the intervals of which are rounded; on the interval between the second and third are three punctiform impressions, and another on the interval between the third and fourth near the base; a few punctiform impressions are seen on the posterior part of the margin; the sutural stria is bifurcated at the base.

This insect is from the mountains of Victoria (Yankee

Jim), its thorax is very similar to the one of *Brevicollis*, but the elytra are much more like those of *Punctipennis*.

*Dicrochile Minuta*: length  $5\frac{1}{2}$ ' ; black, rather brilliant ; head oval, thorax small, almost square, very nearly as long as broad, rounded laterally, covered with transverse striolæ ; it has large lateral borders, a longitudinal sulcate in the middle, and indistinct transverse impressions in front and behind ; elytra broader than the thorax, elongated, striated ; the intervals between the striæ rather elevated, the one between the second and third bearing three small punctiform impressions ; a short striæ near the scutellum ; a few punctiform impressions near the lateral margin.

From Melbourne, the Mountains of Victoria, Tasmania, and the Paroo River.

Note.—*Dicrochile Goryi* is a most common insect, and extends its habitat from the north of Queensland, over New South Wales, Victoria, and South Australia, to the southern parts of Western Australia ; I have it also from the Darling river. *Brevicollis* is not quite so common ; I have specimens from Melbourne, New South Wales, and the Darling river.

#### PEDALLOPIA.

Mentum broad, strongly emarginated, without a tooth ; wings of the mentum broad, rather straight externally, pointed at the extremity ; palpi with their last article oval ; labrum transversal, not emarginated ; mandibulæ short, almost straight, very broad, obtuse at the apex ; antennæ moderately long, rather slender, with the first article large, the second the smallest, the others conical and about equal ; tarsi slender, with the first article as long as the two following together ; the anterior tarsi are shorter and thicker, with the first article strong, the two following short and triangular, the fourth bilobated ; claws very small, simple ; head very large, depressed, round ; eyes small ; thorax short, broad, cordiform ; elytra oval, oblong, depressed ; legs rather slender.

*Pedalopia Novæzelandiæ*: length 4' ; of a dark brown ; head smooth ; thorax with a front transverse impression, and a light longitudinal sulcate on the middle, the lateral margins are yellow ; elytra very feebly striated, they are of a dark yellow, with the anterior part of the discus brown ; lower side of the body black, with the inferior margin of the elytra, the legs, antennæ, and parts of the mouth of a light

brown ; the thighs yellow ; this curious insect inhabits New Zealand.

Note.—The form of the head, of the mandibulæ, &c., brings this insect among the *Licinidæ* ; the absence of a carina to the elytra, and of a tooth to the mentum, and the oval form of the palpi, places it next to *Rembus*, *Badister* and *Dicrochile*, but it differs from all by the form of its labrum. Its fascies has some resemblance with the one of some of the large *Cymindis*.

### *Stomidæ.*

This family has till this day appeared to be missing from the Australian Fauna, but four *genera*, all new, seem to belong to it ; one, *Meonis*, most certainly does ; the others, *Adetipa*, *Darodilia*, and *Leiradira*, are rather more doubtful. The insect on which *Meonis* is formed is something like a large *Stomis*, but broader, and its elytra are more oval. It is distinguished by the triangular form of its palpi.

*Darodilia* has much the appearance of a *Feronia*, but with the mandibulæ of *Stomis*.

*Adetipa* seems to come near *Meonis*, but the mandibulæ, which are protuberant, are less so than in most *Stomidæ*, and I should probably have placed this insect amongst the *Feronidæ* if it had not been for the entire absence of a tooth to the mentum.

*Leiradira* is in the same case ; its anterior tarsi are much like those of many *Feronidæ*, but it has no tooth to the mentum, and it is easily distinguished by the great length of the first article of its antennæ, after which these organs are bent. In general appearance it has something of *Cnemocanthus*, but the humeral angles are well formed.

As it is the case with many other groups of *Carabidæ*, the *Stomidæ* form a very unnatural assemblage of insects.

### MEONIS.

Mentum transverse, very deeply emarginated convex and rounded in the centre ; wings of the mentum large, broad, pointed at their extremity, obliquely truncated on the inner side ; palpi long, ended by a long triangular article, obliquely truncated at the extremity ; labrum transverse and emarginated in front ; mandibulæ very long, very prominent, carinated, rounded and pointed at the extremity, without any tooth ; maxillæ very long, very prominent, arched and densely hirsute internally ; antennæ filiform, as

long as the head and thorax united, the first article large, rather longer than the two following taken together; the second short, the two following conical, the others elongated and hirsute; head oval, attenuated behind in the form of a sort of neck; eyes prominent; thorax cordiform, attenuated behind, with the sides rounded, the anterior angles rounded; elytra broader than the thorax, oval, rather convex; legs strong; anterior thighs rather inflated; tibiæ of the same pair very deeply emarginated internally; tarsi slightly dilated in the male, their first article longer than the others, the three following triangular and hirsute.

*Meonis Ater*: length 5'; black, shiny; thorax with a deep longitudinal sulcate in the middle, and two strong elongate impressions behind; elytra with four deep striæ, the margin having deep punctiform impressions; palpi, antennæ, with the exception of the basal article, and tarsi brown.

Clarence River (New South Wales) and Brisbane (Queensland).

*Meonis Niger*: Length 6'; differing from the precedent by its large size, its broader form, and the striæ of the elytra, which are five in number. As in *Ater*, there is a considerable smooth space between the striæ and the lateral margin.

Clarence River.

#### ADETIPA.

Mentum deeply emarginated, without any tooth; the wings of the mentum large, rounded externally, truncated inside, and pointed at the extremity; palpi rather long, narrow, the two last articles about equal in length, the terminal long, narrow, almost cylindrical, and rather truncated at its extremity; labrum quadrangular, transverse, and rather indented in front; mandibulæ rather prominent, strong, arched towards the end; antennæ rather long, filiform, the basal article the largest, the second the shortest, the others about equal, subconical, the last oval; head rather large and oval, narrowed in form of a neck behind the eyes; thorax cordiform, about as long as broad; elytra oblong, rather elongated, and a little depressed; legs rather strong; anterior tibiæ strongly emarginated internally, armed laterally with a line of spines; tarsi narrow, furnished below with short spines; the first article much longer than the others, the three following triangular, the fifth long; claws moderate.

*Adetipa Punctata* : Length  $7\frac{1}{2}'$ ; of a brilliant black ; head having two strong longitudinal impressions between the eyes, and a transverse one in front, which unites the former ; thorax cordiform, with the anterior angles rounded, the sides emarginated ; on the centre is a strong longitudinal sulcate ; on the anterior part a very feeble transverse impression, and behind two very deep longitudinal ones ; elytra of a dark purple, having four very deep longitudinal striæ leaving a broad space between those and the margin ; in the interval between the second and third striæ are two strong punctiform impressions on each elytron, one rather before the middle of the length, and the other towards the two-thirds ; the lateral margin presents a series of very deep punctiform impressions, and the striæ of the elytra unite towards the extremity ; the lower side of the body is of a very brilliant black, and the abdominal segments are very strongly impressed laterally ; the tarsi are brown, and the antennæ hirsute, except on the three first articles.

From the Clarence River.

#### DARODILIA.

This new genus is nearly allied to *Feronia*, and the insect on which it is formed has the fascies of *Omascus*, but it is very distinct by its long advanced mandibulæ, which are strong, arched, pointed at the apex, and carinated at the base ; the labrum is very strongly and angularly emarginated. The palpi are long and slender, with the terminal article long, rather oval, and truncated at the extremity ; the mentum is strongly emarginated, with a tooth in the centre ; its wings are very broad, rounded externally, and pointed at the extremity ; the anterior tarsi are moderately dilated (in the only specimen I have), the first article is longer than the following, and all are triangular ; the other tarsi are slender, with the first article as long as the two others together ; on the lower side all the tarsi are hirsute, but none have squamulæ ; the head is oval, attenuated behind in form of a neck ; the antennæ are rather long, with the first article strong, the second short, the third long, the others shorter, about equal among themselves, the last oval ; thorax rather rounded ; elytra oblong ; legs moderately strong.

*Darodilia Mandibularis* : length  $6'$  ; of a brilliant black ; head and thorax smooth ; the latter rather longer than broad, very much rounded on the sides, a little broader in front than behind ; it has the anterior transverse impression feebly

marked, only a vestige of the longitudinal sulcate and the two posterior impressions well marked and elongated; elytra having a strong sutural stria, a second abbreviated behind, a third still shorter, and only extending to the middle of the elytra, the remaining part smooth; margin with a few impressions; tarsi, palpi, and antennæ after the third article.

Lachlan River.

#### LEIRADIRA.

Mentum broad, very strongly emarginated, but having no tooth; the wings are broad, and terminated in an acute point. Labrum transverse, angularly emarginated; antennæ bent after the first article, which is longer than the three following together, they grow thicker as they progress towards the extremity; mandibulæ strong, arched towards the extremity, and very pointed at the apex, having no tooth on the inner side, and being slightly carinated at the basis; palpi: the maxillary with the first article short, second conical and long, third of the same form but shorter, last large, compressed, suboval, truncated; the labial with the first article rather short, the second long and conical, the third large, truncated, and rather scutiform; tarsi slender, having the first article long; they are covered with spiny hair, the anterior dilated in the male, the three first articles being equal, triangular, and furnished below with a double row of squamulæ, the fourth small; claws simple; in the female the anterior tarsi are not dilated, and the first article is much longer than the following; head rather large, oblong, the posterior part forming a neck; thorax oval, rounded laterally; elytra oval, with the humeral angles well marked; legs strong; the anterior tibæ strongly emarginated, and having a spine at the upper end of the emargination, and another at the apex.

This genus seems to form a passage between the *Onemacanthidæ* and the *Stomidæ*; the mandibulæ are not as elongated as they usually are in this latter group.

*Leiradira Latreillei*: length 5'; of a brilliant black, having fine metallic tinges on the sides of the thorax and elytra; the thorax is oblong, with the front transverse impression almost imperceptible; the longitudinal sulcate light, the two posterior impressions elongated and rather deep; elytra deeply striated, having two punctiform impressions on the interval between the second and third, the first a little before the middle, and the other towards the two-



thirds of the length; a series of punctiform impressions extend near the margin; lower side of the body and legs black; tarsi brown; antennæ covered after the first article with a brown pubescence.

Mountains of the south of Queensland.

*Leiradira Auricollis*: length  $5\frac{3}{4}$ '; black; thorax of a fine gold colour; elytra purple; thorax more rounded at its anterior part than in the preceding species; elytra more oval; similar in other respects.

Clarence River, New South Wales, and Rockhampton, Queensland.

### *Cnemacanthidæ.*

This family is very extensively represented in Australia, and on this continent the most southern parts seem almost to have its monopoly. They can in general be called antarctic insects, the greatest number being confined to the extreme south of America, such as Chili, and the Straits of Magellan; and in Australia, to Victoria, South Australia, Van Dieman's Land, and particularly New Zealand. Few extend to the north of South Wales, and to the southern parts of Western Australia. Those that are found in other regions of the world are in general confined to great altitudes.

The genus *Oopterus* of Mr. Guerin, which Mr. Lacordaire places in this group, belongs manifestly to the *Subulipalpi*, among which the author of this generic division had most properly classified it.

### MECODEMA.

This genus of Mr. Blanchard has been very little known till the present; it is founded on a large insect, *Sculpturatum*, which is not rare in the mountains of New Zealand, near Dunedin. A considerable number of other sorts have been found since, but have not yet been described.

*Brosicus Cæneus* of White, belongs also to this genus, as also very probably the *Promecoderus Lottinii*, Brulle, "Hist. Nat. des Insectes," vol. iv. p. 459. As yet no *Promecoderus* has been found in New Zealand, and if one could admit that there has been an error in the locality, that insect might be *Promecoderus Concolor*.

*Mecodema Howittii*: length 13'-16'; this is the largest species known yet; its colour is of a dark copper; the forehead is almost smooth, but strong transverse striolæ cover the anterior parts of the head; the thorax is broad and cor-

diform, it is rather smooth, with some transverse irregular striolæ; on its anterior margin, the striolæ are longitudinal, the margins are entire; elytra oval, rather long, covered with longitudinal lines, rather elevated, and with their intervals most irregularly, but strongly, punctated and granulated.

This fine insect has been found near Christchurch, in New Zealand; I owe my specimen to the kindness of Dr. Howitt.

Note.—The same as in all the other sorts the thorax has a longitudinal sulcate in the middle, and two transverse impressions, one in front and the other behind, with others at each angle; it is useless to repeat this for each species.

*Mecodema Rectolineatum*: length 13'; nearly allied to *Sculptatum*, but the thorax more smooth, and the elevated lines of the elytra regular, with the bottom of the striæ strongly punctated; they are deprived of those irregular depressions so remarkable on the typical species; the general form of the elytra is also shorter.

From the mountains near Dunedin, New Zealand.

*Mecodema Lucidum*: length 12'; of a rather dull black, smooth; head with a transverse line of very small points on the forehead; thorax having vestiges of faint transverse striolæ only on the middle longitudinal sulcate; elytra with punctated striæ, almost obliterated near the sutura, but very strong on the sides and behind; they have also a sort of longitudinal and smooth costa near the lateral margin, which is bordered externally by a few large irregular punctures.

New Zealand.

*Mecodema Crenicolle*: length 13½'; of a dark copper colour; head covered with irregular rugosities; thorax with its sides crenulated, and its surface covered with transverse striolæ; elytra oval, long; covered with very strong and large points dispersed in irregular longitudinal lines; they are much deeper and confluent on the sides; base of antennæ and legs rather reddish.

This fine insect comes from Auckland (New Zealand).

*Mecodema Simplex*: length 13'; of a rather shiny black, having a metallic tinge; head and thorax covered with transverse undulating striolæ; others longitudinal on the internal side of the eyes; elytra regularly striated; the striæ with very small punctures near the sutura, but those near to the margin formed of large square points; the intervals of the striæ are nearly carinated; antennæ and legs of a dark brown.

Auckland, New Zealand.

*Mecodema Blagravii*: length 10'; of a shiny brownish black; head smooth, with two longitudinal striæ behind each eye, and a transverse impression in front of them; thorax cordiform, rather depressed, rounded and marginated laterally, with a slight transverse impression on the anterior angles and a large and rounded one near the posterior ones; its surface presents transverse striolæ; elytra oval, rather strongly striated; a few very strong punctiform impressions on the posterior part of the margin; lower side of the body black; legs and parts of the mouth red; basal articles of the antennæ brown, the others black, and after the third hirsute.

Mountains of Victoria, found by the lamented Mr. Louis Blagrave.

*Mecodema Impressum*: length  $10\frac{1}{2}'$ ; of a dark copper colour, rather brilliant; head smooth in front, and punctured on its posterior part; thorax rather smooth, with faint transverse striolæ; the anterior angles covered with a dense puncturation; elytra rather long, covered with striæ, which are very finely punctured, and with the intervals between them smooth towards the sutura, and formed of very strong punctures near the margin; on the interval between the seventh and eighth striæ are three or four rather large but irregular punctiform impressions; a sort of smooth longitudinal carina follows near the external margin, and is bordered externally by a line of large and distinct punctiform impressions; the posterior part of the elytra is covered with very strong and irregular impressions; legs and antennæ black.

Mountains near Dunedin, New Zealand.

*Mecodema Alternans*: length  $11\frac{1}{2}'$ ; this insect is very nearly allied to the preceding, and has the same punctiform impressions of the elytra, but they are very different, being disposed so as to leave alternatively broad and narrow spaces between them; the broad spaces number four, having two punctured striæ between each; the colour is rather darker than in *Impressum*, and the elytra rather broader and of a more oval form.

This insect was brought from the neighbourhood of Otago, New Zealand, and is in Dr. Howitt's collection.

Note.—The above species have all the same fascies, being rather depressed, with the thorax more or less cordiform. The following have a different appearance, but the parts of the mouth, of which I have made a minute study, being similar, I have to include them in the same genus. The in-

sects I mention are long, rather cylindrical, with the thorax rather oviform, and very little broader in front than behind; the elytra are elongated, and almost cylindrical.

*Mecodema Ceneum* ("White, Voyage of Erebus and Terror, Ent.," page 5, pl. 1, fig. 8): length 8'; this insect is of a dark copper colour, with the parts of the mouth and thighs brown; the striæ of the elytra are sometimes very feeble.

Common in the mountains of New Zealand, near Dunedin.

*Mecodema Inæquale*: length 7'; nearly allied to *Ceneum*, but shorter and broader; head large, with longitudinal striolæ on the inner side of the eyes, and a transverse series of large punctiform impressions on the forehead; thorax cordiform, covered with striolæ, which are transverse on the disk, and longitudinal towards the anterior margin; a number of long straight hairs are dispersed on its surface; elytra oval, covered with strong longitudinal striæ, which are very irregularly interrupted laterally and behind; inferior side of the body, legs, mouth, and antennæ black, the latter hirsute, except on the basal articles.

New Zealand, Dunedin.

*Mecodema Elongatum*: length  $6\frac{1}{2}'$ ; of a brilliant copper colour; general form elongated, with the sides almost parallel; head with two strong impressions in front, and a transverse band of small punctures behind the eyes; thorax rather cordiform, larger than broad, narrower behind, with a transverse impression on each of the anterior angles, and a deep elongated one on the posterior; the surface presents faint transverse striolæ, and its posterior part is sometimes rather ruguous; elytra long, covered by striæ formed of strong punctures; near the lateral margin is a smooth space, on the inner side of which extends a longitudinal row of deep punctiform impressions; lower side of the body, legs, and mouth black; the end of the palpi red; some long straight hairs are dispersed on the elytra, and still more on the thorax.

New Zealand.

Note.—Some specimens in Dr. Howitt's collection are a little narrower than the others; I believe this difference to be sexual.

Note.—A third form now appears, which is easily distinguished by a very large head, and the body considerably depressed; the thorax very cordiform; the elytra oval. These insects are very much like *Percus*, and partake also of *Siagona*, but are not so depressed; the labrum is emargi-

nated, and the tooth of the mentum strongly bifurcated, much more so than in the other sorts.

*Mecodema Percoides*: length 12'-15'; of a brilliant black; head and thorax furnished with long brown hair, dispersed round their margin; elytra smooth, with very faint longitudinal striæ, visible only laterally, and on their posterior portion; a series of seven or eight deep punctiform impressions form a longitudinal line on each elytra, at some distance from the lateral margin; end of the palpi and trochanters brown. Some specimens have the head much smaller. I believe them to be females.

Mountains of Tasmania.

*Mecodema Montanum*: length 11'; black, brilliant; general form rather long and narrow; thorax rather cordiform, truncated in front and behind, with the sides rounded and becoming narrower toward the back part; an impression is seen near each of the anterior angles, and a few transverse striolæ on the surface; elytra oval, rather long, covered with feeble longitudinal striæ; a line of deep punctiform impressions follow the margins; these impressions are more numerous on their posterior part; parts of the mouth, legs, and base of the antennæ rather brown; the remaining part of the latter hirsute; a few long brown straight hairs are dispersed on the sides of the head and thorax.

From the mountains of Victoria.

#### MAORIA.

This new genus is distinguished from *Mecodema* by its palpi, which, instead of being more or less securiform, are terminated by an oval article; the tooth of the mentum is simple and not bilobed; the legs are stronger, the thighs inflated; the front tibiæ are more strongly palmated, and those of the other two pair are dilated at their extremity, and protrude in the form of a strong point; the tibiæ are all straight, the anterior armed with two very long spurs on the inner side; the mandibulæ are strong; all the sorts known are from New Zealand.

*Maoria Tibialis*: length 9½'; black, with a rather brown tinge; head smooth, with a transverse depression behind the eyes; thorax rather cordiform, rounded and margined laterally, with the anterior angles rounded and impressed, a very deep punctiform impression on each of the posterior angles; elytra oval, very strongly striato-punctated; a longi-

tudinal series of deep punctiform impressions on the intervals between the sixth and seventh striæ; the lower part of the margin covered with irregular deep impressions, which cover also the posterior part of the elytra; some long, straight brown hairs are scattered over the elytra, and on the margins of the thorax; thighs, base of the antennæ, and mouth, of a reddish brown.

Common in the mountains which border the Molyneux River in New Zealand.

*Maoria Punctata*: length 8'; of a brownish black; general form long and rather depressed, the sides almost parallel; head with a few longitudinal striolæ on the inner side of the eyes, and a transverse line of small punctures on the forehead; thorax rather cordiform, almost straight laterally, with the anterior angles rounded and impressed; the posterior angles very rounded, sinuous, and having a deep punctiform impression; the surface presents transverse striolæ, and others longitudinal on the posterior margin; elytra rather long, parallel, covered with longitudinal striæ, formed of oblong points, rather distant one from the other; they have a smooth longitudinal space near the margin; lower side of the body and antennæ black; palpi brown.

Mountains of Dunedin (New Zealand).

*Maoria Morio*: length  $6\frac{1}{2}'$ ; very much like the precedent, but smaller, and of a brilliant dark copper colour; the elytra are more regularly punctato-striated; the general form is rather more convex and less depressed.

Otago (New Zealand).

*Maoria Clivinooides*: length  $6\frac{1}{2}'$ ; of a dark brilliant brown; elongated; head oval, with a strong transverse impression behind the eyes; thorax cordiform, rather longer than broad, narrower behind, with the sides rounded and marginated; a very deep impression at each posterior angle, and a transverse one uniting them; elytra oval, rather convex, covered with deep striæ, of which those near the sutura are rather punctated; a smooth space extends near the margin, and bears a row of deep punctiform impressions; antennæ, mouth, and tarsi of a brownish red.

This insect has rather the appearance of a large *Clivina*; it was found round Wellington (New Zealand), and was given to me by Dr. Howitt.

*Maoria Dyschirioides*: length  $6\frac{1}{2}'$ ; of a brownish black, rather brilliant; head small and oval, with a longitudinal impression near the inside of each eye, and a very strong

transverse impression on the posterior part; thorax considerably broader than wide; its greatest breadth being past one half of its length; it is rounded and marginated laterally, with the anterior angles rather rounded, and the posterior broadly so; behind those angles the thorax is rather prolonged forward with a strong sinuosity on each side; there is a light transverse impression on the anterior angles, and a strong rounded one behind; elytra oval, rather depressed, covered with striæ, very strong near the sutura, and disappearing almost entirely as they go near to the lateral margin; legs and parts of the mouth red; antennæ black and hirsute, except the basal articles, which are brown.

This insect has something of the form of a large *Dyschirius*; it is from the Crooked River, in New Zealand.

#### BRULLEA.

Mentum broad, very deeply emarginated, with a small bilobated tooth in the centre of the emarginated part; the wings very large, broad and curved on the external side, obliquely truncated at their extremity; palpi with their anti-penultimate articles very long and slender; the terminal long, slender, fusiform, and curved, rounded at its end; labrum very transversal; mandibulæ large, strong, carinated, very prominent, almost straight on their inner side, and arched externally; legs short, very strong; thighs largely inflated, particularly the posterior; tibiæ strongly curved internally, particularly the posterior; they are very much dilated, and almost triangular, very rugose, and having externally a sharp edge; tarsi (the anterior missing in my specimen) having their four first articles triangular, the first longer than the others; their inferior side covered with long straight hair; antennæ short, thick, with the basal article the largest, the second narrower and a little shorter, the others granular and hirsute, the last oval; body thick; head almost square, transversal, much broader than the mandibulæ; thorax cordiform, rather depressed, separated from the body by a pedunculi; elytra oval, broader behind than in front; posterior trochanters very large, oval, arched, and pointed.

This genus, which I dedicate to my friend Aug. Brulle, a well-known naturalist, comes very near his genus *Glyptus*, but is distinct by its labrum not being emarginated, and its curved tibiæ. Its place is evidently near *Mecodema* and *Maoria*, forming the link between them.

*Brullea Antarctica*: length  $12\frac{1}{2}'$ ; of a dark brown, rather shiny, smooth; thorax cordiform, rounded laterally; it presents a longitudinal sulcate in the middle, and a strong punctiform one on each of the posterior angles; elytra covered with strong longitudinal striæ; those nearer to the margin very strongly punctated; posterior part of elytra rugose; on the margin a longitudinal row of very large and strong punctiform impressions, and another of four similar ones on the seventh striæ; lower side of the body, legs, and antennæ of a reddish brown.

New Zealand, Auckland.

#### PROMECODERUS.

This form is up to the present entirely particular to Australia; no sorts having been found even in New Zealand.

*Promecoderus Tasmanicus*: length  $5'$ ; subdepressed; black, with a slight brilliant tinge; head smooth; thorax rounded, truncated in front, almost plain, with the lateral margins rather erected; it is rather longer than broad, with the anterior prominent; it has no longitudinal sulcate in the middle, but a very faint transverse impression is seen in front, and another behind; elytra smooth, with rather faint longitudinal striæ, which, seen through a magnifying power, appear punctated; antennæ, palpi, and tarsi of a reddish brown.

Tasmania.

Note.—Some specimens have the thorax much broader than others. I suppose this is a sexual character; this sort is very distinct from *Ovicollis* by its depressed thorax, and the absence of the longitudinal sulcate on it.

*Promecoderus Bassii*: length  $7'$ ; of a brilliant black; head and thorax generally of a dark metallic green; head with a feeble transverse impression behind the eyes, and two very faint longitudinal ones between them (the latter sometimes obliterated); thorax a little broader than wide, convex, of an oval form, with the anterior part truncated; it has a longitudinal sulcate in the middle, a very faint transverse impression in front, and a stronger one behind; elytra oval, rather convex, covered with striæ, in which faint punctures may be seen; three very deep impressions on the posterior part of the margin; lower side of the body black; antennæ, parts of the mouth and tarsi brown.

From King's Island, in Bass's Straits.



*Promecoderus Pygmæus*: length  $3\frac{2}{3}$ '; elongate, of a brilliant copper colour; head with two strong rounded impressions in front, and a transverse one behind the eyes; thorax nearly as long as broad, oval, truncated in front, having a faint longitudinal sulcate in the middle, and transverse impressions in front and behind; elytra long, striated, with a few deep impressions on the posterior part of the margin; lower side of the body of a brilliant copper colour; legs, tarsi, buccal parts, and the three basal articles of the antennæ of a dark brown; the remaining part of the antennæ black and hirsute; the thighs black.

From the mountains of Victoria.

*Promecoderus Minutus*: length 4'; very much like *Pygmæus*, but broader; thorax more globular, elytra much more oval, parts of the mouth, antennæ and legs of a light brown, middle of the thighs black; the lateral impressions of the elytra generally faint; the general colour seems to be subject to considerable variations, from light copper colour to nearly black.

Swan River.

*Promecoderus Nigricornis*: length 7'; black, brilliant; head and thorax of a dark copper colour; head smooth, with two punctures in front, and a very faint transverse impression behind the eyes; thorax cordiform, convexed, impressed transversally in front and behind with a deep longitudinal sulcate in the middle; on the sides of the sulcate are faint transverse striolæ; elytra oval, convex covered with faint longitudinal striæ; their posterior part is rather corrugated; their margin has no punctiform impressions, but a short longitudinal sulcate; the palpi are brown; the antennæ black, with the external base of the first three articles of a rather dark brown; the tarsi have some long brown hair; palpi of a dark brown.

Mountains of Victoria.

*Promecoderus Maritimus*: length  $6\frac{1}{2}$ '; of a brilliant black; head large, with several very faint irregular impressions in front and between the eyes; a feeble transverse impression behind these organs; thorax oblong, globular, sub-cordiform, with feeble transverse impressions in front and behind, and a longitudinal sulcate in the middle; elytra oval, oblong, convex, covered with rather faint punctated striæ; the posterior part of the margin has a few faint punctiform impressions, and a short longitudinal sulcate; some brown hair on the tarsi; antennæ black, with

the base of the first articles of a dark brown; the palpi of the latter colour.

On the Sea shore of Cape Schanck (Victoria).

*Promecoderus Striato-punctatus*: length  $7\frac{1}{2}'$ ; very nearly allied to the preceding, but head smaller; elytra more parallel and cylindrical; the first article of the antennæ is of a dark brown, the following black, and the four last of a dark reddish brown; the general colour is dark but brilliant, and more or less metallic.

I have one specimen from the mountains of Victoria, and another from the Darling River.

*Promecoderus Semistriatus*: length  $6\frac{1}{2}'$ ; of a dark metallic colour, almost black; head with two slight impressions in front, and a strong transverse one behind; thorax longer than broad, rather cordiform, considerably narrowed behind; it has a strong transverse impression in front, another behind, and a deep longitudinal sulcate in the middle; elytra oval, with strong longitudinal striæ near the sutura, but growing fainter as they are more remote from it; they entirely disappear before they reach the margin; a punctiform impression and a short sulcate on the posterior part of the margin; the inferior side of the abdomen presents a punctiform impression on each side of its segments; antennæ, palpi, and tarsi, of a reddish brown.

From Eastern Creek, New South Wales.

Note.—A specimen from Clarence River has the striæ of the elytra more feeble.

*Promecoderus Albaniensis*: length 5'; black, with a copper tinge; head with a transverse impression in front, and another behind the eyes; thorax sub-cordiform, with a longitudinal sulcate in the middle, and two transverse impressions, one near the anterior margin, and the other behind; elytra oval, with feeble longitudinal striæ, which disappear towards the sides; a punctiform impression and a short sulcate on the posterior part of the margin; the lower side of the body is of a glossy black; the segments of the abdomen have a deep punctiform impression on each side; labrum black; antennæ, palpi, and tarsi of a dark brown; the basal articles of the antennæ generally black or dark.

Variety of a copper colour.

Common at King George's Sound.

*Promecoderus Scauroides*: length 4'-5'; black, brilliant; head smooth, with a most feeble transverse impression behind the eyes; thorax semicircular, truncated in front, globular, having two transverse impressions, one in front and the other behind, and a longitudinal sulcate in the middle, extending to the posterior margin; elytra oval, with longitudinal striæ, not extending to the lateral margin; a punctiform impression, and a short longitudinal sulcate on the posterior part of the margin; lower side of the body of a shiny brown; segments of the abdomen having on each side a punctiform impression, which extends in the form of a short oblique sulcate towards the centre; labrum black, palpi, mandibulæ, and antennæ, brown; thighs black, with the tibiæ generally brown; tarsi reddish.

Swan River.

*Promecoderus Elegans*: length 5½'; of a brilliant copper colour; head with two punctures in front, and a transverse impression behind the eyes; thorax cordiform, longer than broad, strongly sulcated longitudinally in the middle, transversally impressed in front and behind; elytra oval, rather broad, sub-depressed; they are covered with strong longitudinal striæ, which do not extend to the margin; on the lower part of this margin are one or two punctures, and a short longitudinal sulcate; lower side of the body of a green copper colour; segments of the abdomen with a punctiform impression on each side; antennæ with their six first articles of a dark brown, the others of a lighter colour, and hirsute; thighs black; parts of the mouth and tarsi of a light reddish brown.

From Melbourne.

This insect comes near *Gibbus*, but is quite different, on account of its light elegant form, and the elytra much more oval.

*Promecoderus Oblongus*: length 6½'; elongated, with the sides nearly parallel; of a metallic green; head with two longitudinal impressions in front, and a transverse one behind the eyes; thorax with a strong transverse impression in front, another behind, and a deep longitudinal sulcate on the posterior part; the surface is entirely covered with transverse and sinuous striolæ; elytra oblong, convex, almost parallel laterally, covered with rather faint longitudinal elevations on the posterior part of the margin a punctiform impression and a short longitudinal sulcate; lower side of the body, labrum, mandibulæ, and legs black; tarsi and antennæ

brown; the basal article of the last red; a punctiform impression on each side of the abdominal segments.

Melbourne.

*Promecoderus Modestus*: length 6'; elongated; black; head smooth, with a light transverse impression in front, and three punctiform impressions on the more advanced part; a very feeble transverse impression behind the eyes; thorax cordiform, much longer than broad, with a deep longitudinal sulcate in the middle, and two very feeble transverse impressions, one in front and the other behind; elytra oblong, elongated, with longitudinal striæ, which do not extend to the lateral margin; on the posterior part of the latter a puncture and a short oblique sulcate; lower side of the body of a copper colour; a deep punctiform impression on each side of the abdominal segments; legs, labrum, and mandibulæ black; antennæ and tarsi brown.

Tasmania.

*Promecoderus Neglectus*: length 6'; elongated, of a shiny black; head with two feeble impressions between the eyes, and a transverse one behind them; thorax longer than broad, globular, with a strong longitudinal sulcate in the middle, and a transverse impression in front and behind; elytra elongated, oval, and rather strongly striated; the striæ becoming feeble towards the lateral margin, but extending to them, the posterior part of this margin having a punctiform and a longitudinal impression; the sides of the elytra are slightly reticulated; abdominal segments impressed on each side; labrum and mandibulæ black; palpi, tarsi, and four first articles of the antennæ of a dark brown, the remaining part of the antennæ black.

Mountains of Victoria.

*Promecoderus Suturalis*: length 7'; very elongated; of a brilliant black, having on the elytra a metallic tinge; head smooth, very feebly impressed in front, and with a very faint transverse impression behind the eyes; thorax longer than broad, cordiform, globular, covered with transverse striolæ, having a strong longitudinal sulcate in the middle, and a rather deep transverse impression in front and behind; elytra long, oblong, convex, attenuated behind, very smooth, with a rather strong sutural striæ, and several short longitudinal impressions on the basis; on the posterior part of the margin are three rather deep impressions; abdomen with a strong punctiform impression on each side of the segments; labrum and mandibulæ black; palpi

and antennæ brown; the first article of the latter of a lighter colour; tarsi brown.

Adelaide.

Note.—This sort has entirely the form of *Gracilis*, but is distinct by its much larger size and its black legs.

*Promecoderus Howittii*: length 7'; very nearly allied to *Brunicornis*, having the same form, but the elytra are smooth, and have only a sutural stria. This sort is common round Melbourne. I have preserved the name given to it by the late Mr. MacLeay in his collection. It is distinguished from *Concolor* by the presence of the sutural striæ, and from *Suturalis* by the color, which is generally dull, by its form, much thicker, and the elytra more rounded behind.

From Melbourne.

*Promecoderus Wilcoxii*: length 116½'; copper colour; head with two large rounded impressions in front and two punctiform ones between the eyes; thorax globular, with a strong longitudinal sulcate in the middle, and two feeble transverse impressions, one in front and the other behind; elytra oval, with strong striæ, which become very weak towards the margin; these striæ appear punctated when seen through a magnifying power; on the posterior part of the margin are three impressions, two being punctiform, and one linear; lower side of the body of a green copper colour; segments of the abdomen with a punctiform impression on each side; legs of a dark brown, antennæ, tarsi, and buccal parts of a light reddish brown.

Sent by Mr. Wilcox from the Clarence River.

*Promecoderus Lucidicollis*: length 5¼'; of a shiny black; head and thorax of a brilliant copper colour, the latter rather short and globiform, with the longitudinal sulcate, and the anterior and posterior transverse impressions strong; elytra oval, smooth, with three large impressions on the posterior part of the margin; sides of the abdominal segments very strongly impressed; legs, antennæ, and parts of the mouth of a reddish brown.

Melbourne.

This insect, by the absence of all striæ on the elytra can only be mistaken for *Concolor* or *Gracilis*. It is distinct from the first by its much smaller size, its thorax shorter and more gibbous, the colour of its legs, &c.; and from the second by the oval form of its elytra, which are oblong, and rather parallel in *Gracilis*. In form it resembles *Bassii*.

The sorts of *Promecoderus* are so nearly allied to one another, that I think it will be useful to give here a few distinctive characters of the sorts that I have in my collection. Some of these characteristic distinctions are light and even variable, but the general fascies makes it impossible not to separate the species; in all cases the following notes will always considerably help the entomologist:—

- A. Thorax without a longitudinal sulcate (*Tasmanicus*).
- B. Thorax with a longitudinal sulcate in the middle.
- a. Elytra striated.
- \* The striæ punctated.  
 Head large, elytra oval (*Maritimus*).  
 Head ordinary, elytra oblong (*Striato-punctatus*).  
 Head ordinary, elytra oval, body black (*Bassii*).  
 Head ordinary, elytra oval, body copper colour (*Wilcoxii*).
- \*\* The Striæ not punctated.
- c. Basal article of the antennæ black or dark.  
 Ordinary size; elytra oval, with faint striæ on the entire surface (*Nigricornis*).  
 Ordinary size, elytra oval, with moderate striæ on the entire surface (*Albanensis*).  
 Ordinary size, elytra oval, striæ strong, but only on the sutural half of the elytra (*Semistriatus*).  
 Ordinary size, elytra oval, striæ strong, extending nearly to the margin (*Elegans*).  
 Ordinary size, elytra oblong, strongly striated (*Neglectus*).
- \* Small size, elytra oval (*Pygmaeus*).  
 Small size, elytra very oblong (*Minutus*).
- cc. Basal articles of the antennæ of a light colour.  
 Elytra oblong, striæ all over the elytra (*Oblongus*).  
 Elytra oblong, striæ only towards the sutura (*Modestus*).  
 Elytra oval, thorax cordiform, globular, striæ of the elytra strong (*Gibbus*).  
 Elytra oval, thorax cordiform, globular, striæ of the elytra very faint, colour black (*Scuroides*).  
 Elytra oval, thorax cordiform, globular, striæ of the elytra very faint, colour metallic (*Brunnicornis*).

Elytra oval, thorax cordiform (*Ovicollis*).

Elytra oval, thorax and elytra depressed (*Subdepressus*).

aa. Elytra smooth.

Elytra without striæ, thighs red—

Elytra oval (*Lucidicollis*).

Elytra oblong (*Gracilis*).

Elytra without striæ, thighs black (*Concolor*).

Elytra with a sutural striæ, their form attenuated behind (*Suturalis*).

Elytra with a sutural striæ, their form rounded behind (*Howittii*).

#### PARROA.

Mentum with a very large, deep, broad, and almost square excavation, without any tooth, its wings large, broad, rounded externally, pointed at their extremity, straight at their internal side. Palpi thick, the maxillary having the first article short, the second long, and rather arched, the third short and conic, the last being the longest, oval form, and truncated at its extremity, the labial having a rather short basal article, the second long, the third of the same length, thicker, oval, and truncated at the end. Mandibulæ short, thick, arched, and pointed, in great part covered by the labrum; the right one has several large teeth, the other is simple. Labrum large, broad, denticulated in front. Antennæ with their first article large, the second short, the third the longest and conical, the following of the same form; the others almost oval form, short, rather rounded, and the last oval and pointed. Tarsi strong, the anterior having their four first articles triangular, the basal being the largest; those of the male more dilated; all having below long and strong hair. Head rather large, oval; eyes round; thorax rounded laterally, almost globular; elytra oval; legs strong.

These insects are nearly allied to *Promecoderus*, but very distinct by the absence of the tooth to the mentum; their size is much larger.

*Parroa Howittii*: length 12'; of a brilliant black; thorax globular, rather cordiform, and prolonged behind, with the anterior angles advanced and pointed; it has a longitudinal sulcate in the middle, a strong transverse impression behind, and a very slight one in front; the sutura has trans-

verse striolæ; the sides are very strongly margined; elytra long, smooth, oval; antennæ and tarsi rather brown.

From the Paroo River, in the central parts of New Holland.

*Parroa Grandis*: length 13'; black, not very brilliant; thorax almost round, globular, with the anterior angles rather advanced; the lateral margins very narrow; it has a longitudinal sulcate on the middle, a rather strong transverse impression behind, and a very faint one in front; elytra oval, with their posterior part rather rugous, and (when seen through a magnifying power) covered with irregular inequalities.

Swan River.

*Parroa Violacea*: length 10½'; black, not very brilliant, with a purple tinge, becoming on the elytra of a beautiful purple; thorax rounded, globular, with the lateral margins narrow, and the anterior angles a little advanced; it has a longitudinal sulcate in the middle, and a transverse impression in front and behind; its surface is marked with transverse striolæ, and its posterior margin with longitudinal ones; elytra having their posterior part rather rugous; inferior part of the body of a rather brilliant black.

Swan River.

*Parroa Carbonaria*: length 8'; black, brilliant; very much like *Grandis*, but much smaller; elytra smooth, their surface having a few irregular rugosities only on their terminal part; antennæ and legs rather reddish.

Swan River.

*Parroa Bicolor*: length 7'; brilliant, of a fine purple, with the elytra green; thorax globular, with the margin green; elytra smooth, with a few granulations on the posterior part of the margin; antennæ, mouth and legs black, the latter with rugous hair.

From the Paroo River; in Dr. Howitt's collection.

#### ADOTELE.

The insects on which this new genus is formed, have entirely the form and characters of *Parroa*, with the exception of the palpi, which are all terminated by a large triangular article, having the form of a hatchet; the last of the labial is still larger, and more securiform than the one of the maxillary. The three first articles of the anterior tarsi have below small spongy brushes.



*Adotela Concolor*: length  $11\frac{1}{2}'$ ; entirely of a rather brilliant black; thorax globular, but with the sides rather parallel; it has a longitudinal sulcate in the middle, a transverse impression in front and behind, and its surface is covered with small transverse striolæ; elytra oval, smooth, except on their extremity, which is rather rugous; a few deep punctiform impressions are seen on the external margin.

Swan River.

*Adotela Esmeralda*: length  $9'$ ; same form as the preceding; of a fine emerald green; head and thorax rather darker; elytra rather rugous on their posterior part; when seen through a lense, their surface is seen covered with irregular but longitudinal inequalities; thighs covered with transverse striolæ; lower side of the body almost black; parts of the mouth, antennæ, and legs of a brownish black.

Swan River; received from the Rev. Mr. Bostock.

#### CEROTALIS.

The insects forming this genus have entirely the general appearance of *Promecoderus*, but have no tooth to the mentum, and their anterior tarsi are furnished with spongy cushions below their four first articles.

This latter character separates them from *Parroa*, and their palpi ended by an oval subtruncated article, makes them easily distinguished from *Adotela*.

Mr. Lacordaire, in the first volume of his *genera*, had already mentioned the necessity of establishing this generic division for *P. Degener*.

*Cerotalis Semiviolacea*: length  $8\frac{1}{2}'$ ; of a dark copper colour on the upper side, and of a fine deep purple below; elytra smooth, with a few large, irregular, and punctiform impressions on the posterior part, near the margin; legs black; palpi brown; antennæ and tarsi with hair of the same colour.

Port Lincoln, South Australia.

*Cerotalis Substriata*: length  $7\frac{1}{2}'$ ; same colour as preceding; elytra covered with rather faint longitudinal ridges, forming irregular striæ; the punctiform marginal impressions of the elytra generally deeper.

King George's Sound.

*Cerotalis Versicolor*: length  $7'$ ; of a rather dark green; thorax covered with transverse striolæ and the elytra with

feeble punctated striæ; a few punctures, larger than the others, are irregularly dispersed in these striæ; on the posterior part of the margin a few punctiform impressions; mouth, antennæ, inferior side of the body and legs of a reddish brown.

Victoria, in Dr. Howitt's collection.

### *Cratoceridæ.*

No Australian *Carabidæ* had till lately been placed in this family, but *Forticosomus* belongs to it, the anterior tarsi of the males being very little more dilated than those of the females; as also a new genus formed on a large insect previously described by White as a *Feronia*. The *Acinopus Australis* of Hope is very nearly allied to the latter, but the squamulæ of its tarsi make it necessary to leave it among *Harpalidæ*.

This family of *Cratoceridæ* is a most unnatural and artificial division.

I have also placed here as an *Amblygnathus*, an insect, of which more specimens must be examined before its definitive place can be ascertained.

### TEROPHA.

Mentum broad, transverse, very strongly emarginated, having in its centre a strong bifid tooth; the wings very long, rounded externally, pointed at the extremity, and cut rather obliquely on the inner side. Labrum quadrilateral, transverse; mandibulæ very long, inflexed downwards, arched, rounded externally, pointed at the extremity, straight, or rather emarginated inside. They are strong, and carinated at the base. Palpi: the maxillary long, rather slender, having their first article short, the second the longest, the third conical, and the last rather inflexed and rounded at the extremity; the labial with the first very small, the second very long, and the third truncated at the extremity; trochanters of the posterior pair very long, attenuated posteriorly, curved and pointed at the apex. Antennæ rather short, growing more attenuated from the base to the extremity; first article large, second and fourth equal, third larger; head very large, inflexed downwards; thorax large, longer than broad, with the sides almost straight; it is broader in front than behind; the anterior margin is emarginated, and the posterior angles are acute; scutellum

short and transverse; elytra broader than the thorax, with the anterior angles carinated, they are oval and depressed; legs rather strong; anterior tibiæ terminated by a spine, and having another on the upper part of their emargination, which is short. Tarsi not sensibly dilated in the male, with the first article rather long, the three following short and triangular; those of the anterior part having below some hard hair, but neither lamellæ nor brushes.

The only known sort belonging to this genus, is the *Platysma Flindersii* of White, of which his *Sturtii* is only a mere variety.

This beautiful insect is found but rarely in South Australia. I have received one specimen from the Rev. Dr. Bostock, as having been taken on the Swan River.

#### FORTICOSOMUS.

The formation of this genus is due to Mr. Schaum ("Journ. of Entomology"). It is formed on an insect *Felix*, which is not uncommon in Victoria, and extends itself in the interior at least as far as the Darling River and Cooper's Creek.

The following species appear to belong to the same genus which, by its tarsi being very dilated in the male, and without lamellæ, can only be placed in this family.

*Forticosomus Grandis*: length 9'; of a brilliant brownish black; head large, and bi-impressed between the eyes; thorax much broader in the front than behind, rounded laterally, with the anterior angles prominent, and the posterior ones well marked. The lateral margin becomes very broad towards the posterior angles; the transverse impression in front is pretty well marked, and another is seen backwards; the longitudinal sulcate moderate; the elytra are broad, depressed, striated, and impressed laterally; the humeral angles rather rounded.

From Cooper's Creek.

This insect differs from *Felix* by its much greater size, and the form of the posterior angles of the thorax.

*Forticosomus Rotundipennis*: length  $4\frac{1}{2}'$ ; of a dark, glossy brown; head with two short and feeble impressions between the eyes; thorax transverse, broader in front than behind, with the sides rather rounded, and all the angles well marked; elytra broad, rather short, rounded laterally,

feebly striated; posterior half of the margin impressed; abdomen, legs, palpi, and antennæ yellow.

Paroo River, in the interior of New Holland.

*Forticosomus Lateralis*: length 3'; of a dark brown, with a broad yellow border round the elytra; head very lightly impressed between the eyes; thorax transverse, very rounded laterally, with the anterior angles rounded, and the posterior ones very little marked; there is no longitudinal sulcate, but in front and behind a feeble transverse impression; elytra rather oblong, rounded, having their disk covered with punctated striæ, the margins being smooth; lower side of the body of a light reddish brown; legs, parts of the mouth and antennæ of a light yellow.

Paroo River.

*Forticosomus Minutus*: length  $2\frac{1}{2}'$ ; very much like the precedent, but the elytra more oblong, with the sides parallel; the punctated striæ very feeble, but extending nearly to the margin. The insect is of a reddish brown, with the elytra darker, but having the humeral angles of a dark red.

Paroo River.

*Forticosomus Edelii*: length  $9\frac{1}{2}'$ ; of a shiny brown; head with two feeble and oblique impressions in front; thorax transverse, rather cordiform, rounded laterally, with the posterior angles obtuse, and the anterior acute; all its impressions are very faint; elytra depressed, truncated in front, margined with rather weak striæ, the intervals between which are flat and not convex; the margin is feebly impressed.

From Swan River.

*Forticosomus Nuytsii*: length 7'; of a brilliant black; head with two large, but not deep punctiform impressions between the eyes; thorax short, transverse, cordiform; the anterior angles advanced and rather rounded, the posterior almost straight, or very little obtuse; the impressions are moderately marked, and on the posterior margin are numerous but faint longitudinal striolæ; elytra broad, with the humeral angles acute; they are rather deeply striated, and their margin is impressed; lower side of the body, legs, antennæ, and palpi, of a reddish brown.

Nicol Bay, Western Australia.

## AMBLYGNATHUS.

It is with some hesitation that I place the following species in this genus, having only one specimen of it, which may be a female.

*Amblygnathus Minutus*: length 2'; of a brilliant copper colour; head very large, with no longitudinal impressions, but two punctiform ones between the eyes; thorax semicircular, truncated in front, with the anterior angles advanced, and having a broad lateral margin; on the middle is a light longitudinal sulcate; elytra oblong, rather short, depressed, with the humeral angles rounded; they are feebly striated, and their margin is strongly emarginated near the end; the thighs are black; tibiæ, tarsi, and palpi brown; antennæ black, with the first article red.

King George's Sound.

*Anisodactylidæ.*

Two Australian genera have been placed in this family, *Loxomerus* and *Lecanomerus*; the first is a curious insect from New Zealand, having much resemblance with *Nebria*; the second has the general appearance of *Stenolophus*.

The continent of Australia has also another insect which has much more the appearance of a *Nebria* than the one I have just mentioned; it forms a new genus,

## NEBRIOSOMA,

Which differs from *Loxomerus* principally by the absence of a tooth to the mentum; this organ is transverse, very strongly emarginated, the wings are rounded; the palpi are long, with the first and third articles short, the second and fourth long, the latter truncated at the apex; the maxillæ are slender, elongated, arched, ciliated inside; the labrum very short and transverse; the tarsi have their first article longer than the following, the second, third and fourth are triangular, the last long and slender, the anterior tarsi are shorter and broader than the others; antennæ long and slender, with the first article stronger than the others, the second is rather shorter than the following.

The characters of this genus are otherwise the same as those of *Loxomerus*.

*Nebriosoma Fallax*: length 4'; head short, eyes prominent,

two strong impressions between the eyes; thorax short, transverse, cordiform, strongly marginated laterally, it has a transverse impression in front, a longitudinal sulcate in the middle, and two broad impressions behind; elytra broader than the thorax, depressed, bearing striæ which do not extend over the posterior part nor towards the margin; a strong punctiform impression is seen on the third striæ at about the fourth part of the length of the elytra, a striæ slightly impressed follows the margin. The colour is of a dark bronze, almost black, with the tarsi, the palpi, and the antennæ of a dark brown.

This rare insect was found by Dr. Howitt at Kiama, in New South Wales.

### *Harpalidæ.*

In this family we have been obliged to form a new genus from an insect described, many years since, by Hope as an *Acinopus*.

#### SECATOPHUS.

This genus is formed on *Acinopus Australis* of Hope, and is in fact very nearly allied to *Acinopus*.

The principal differences consist in the labrum, which is transverse, but not emarginated and in the palpi much stronger and more broadly truncated at the extremity; the head is equally large in both sexes, and the posterior thighs are very long and strong, particularly in the male, they always extend as far as the extremity of the elytra.

This genus has many points of similarity to the one I have called *Teropha*.

This genus is formed on the *Acinopus Australis* of Hope, which comes from South Australia. The following seems to be distinct:—

*Secatophus Hopei*: length  $9\frac{1}{2}$ ; same coloration as *Australis* but thorax more attenuated behind; elytra oval, depressed, much broader than the thorax at the basis; they are covered with rather deep striæ, on the third of which are three punctiform impressions, one on the third of the length, the second on the middle, and the third towards the two-thirds of the length.

Adelaide.

#### HARPALUS.

This genus is dispersed all over the globe, and the number of its species must be very considerable. It is as

well represented in Australia as it is in Europe, but till this day few species have been described. I have observed that almost all the Australian sorts have the palpi pointed at the extremity, but all their other characters being those of *Harpalus*, and the passage being insensible, it does not appear advisable to separate them from that genus.

Dejean's *Species* only contains six—*Pulcher*, *Melanarius*, *Lucidicollis*, *Æreus*, *Australis* and *Australasicæ*.

Germer, in his paper on the insects of Adelaide ("Linnaea Entomologica"), only adds one new species, *Inornatus*.

Erichson gives three from Tasmania ("Archiv für Naturgeschichte," 1), *Verticalis*, *Promptus*, *Vestigialis*.

Mr. MacLeay, junr., in the "Transactions of the Entomological Society of New South Wales," No. 2, adds three more, *Interstitialis*, *Picipes*, and *Flavipalpis*.

Mons. Boisduval, in his "Faune de l'Océanie," adds one, *Goryi*.

This would carry the number of the described sorts to fourteen, but *Interstitialis* seems to be the same as *Pulcher*, and so this number is restricted to thirteen. In the present paper I describe fifty-three new sorts, which carry the total number to sixty-six.

Europe has about one hundred and forty sorts, but if we consider how difficult is the study of this genus, and how few specimens are usually taken by collectors, on account of the great resemblance the sorts bear to each other, and also the very small part of Australia that has been explored, we will come to the conclusion that an equal number at least will, in all probability, be discovered in this part of the world. No species of the section *Ophonus* has, till this day, been found in New Holland.

*Harpalus Interioris*: length 4'; short; of a dark brown, rather brilliant; head large, with a strong transverse impression in front, ending at each end by a punctiform one; thorax semispheric, truncated in form, the posterior angles almost rounded; its surface presents a very faint transverse line in front, a faint, short longitudinal line in the centre, and a weak transverse line behind; elytra rather short, broader than the thorax, covered with striæ, the first of which bifurcates in front, near the scutellum; a series of impressions follow the margin; lower side of the body of a dark yellow, with the abdomen brown; legs, parts of the mouth, and base of the antennæ yellow, the remaining of these brown.

Paroo River.

This insect belongs to the section *Pangus*.

*Harpalus Waterhousii*: length,  $4\frac{1}{2}$ '; very much like the precedent, but the thorax still more rounded at the posterior angles, the longitudinal line also very faint, but no posterior impressions; the entire surface is marked with transverse striolæ, the spines of the tibiæ very strong; the colour is sometimes dark, but often of a light brown.

Adelaide.

*Harpalus Thouzeti*: length 6'; oval, rather depressed; black, rather brilliant; head with two slight punctiform impressions in front, united by a transverse line; thorax quadrangular, rather transverse, with the angles rather rounded; it is smooth with the longitudinal line, the anterior transverse one, and the two posterior impressions very little marked; elytra broader than the thorax, depressed, much less brilliant than the thorax, having longitudinal striæ, on the third of which a punctiform impression is seen behind; a short abbreviated striæ near the sutura, and a series of very feeble impressions on the posterior part of the margin; lower side of the body and legs of a brilliant black; a feeble impression on each side of the abdominal segments; antennæ black, with the basal article brown; palpi of the latter colour.

Common at Rockhampton. I have also a few specimens from Port Denison.

*Harpalus Rotundicollis*: length 5'; form elongated, of a dark brown, rather brilliant; head smooth with two punctiform impressions in front; thorax semicircular, rather emarginated in front, rounded and laterally, narrower behind than in front, with all the angles rounded, the lateral margins are broad, the surface is covered with small transverse striolæ, on the centre a slight longitudinal sulcate, and a feeble transverse impression in front and behind; elytra strongly striated, a series of impressions on the posterior part of the margin; legs, antennæ and parts of the mouth of a light orange colour.

Note.—There is sometimes a punctiform impression on the back part of the interval between the second and third striæ, but generally there is none.

This insect appears to inhabit a great portion of the Australian continent. I have it from the Paroo River, Rockhampton (Queensland), the Murray, Melbourne, Adelaide, and Swan River; the thorax of this insect has the



form of the one of *Ophonus*, but it is devoid of the punctures which characterise that division; it belongs to *Pangus*.

*Harpalus Denisonensis*: length  $5\frac{2}{3}$ '; very nearly allied to *Thouzeti*, but much larger, entirely black, without any brilliancy; thorax larger, broader, with the anterior angles more advanced, and the impressions deeper; legs black, the three first articles of the antennæ brown, the others lighter and hirsute; tarsi and palpi brown.

Port Denison.

*Harpalus Patrueloides*: length  $4\frac{1}{3}$ '; very nearly allied to *Patruelis*, of the same size; thorax a little larger and a little narrower in front, the anterior angles not quite so much advanced; elytra a little broader than the thorax, more oval than in *Patruelis* with the impressions of the margin more strongly marked; the legs are black, with the base of the tibiæ red; antennæ, parts of the mouth and tarsi of a brownish red; the insect is of a bronze metallic colour, sometimes very obscure.

New South Wales and Victoria.

*Harpalus Melbournensis*: length 4'; body oval, rather depressed; head rather elongated, very feebly impressed in front; thorax rather transverse, narrower in front than behind, rounded laterally, with the anterior angles rather advanced, slightly obtuse and rather rounded; the anterior transverse impression and the longitudinal line of the centre very slightly marked, the two posterior impressions elongated and rather deep; elytra oval, rather broad, with striæ, the intervals of which are flat; an abbreviate striæ near the scutellum; a longitudinal series of four or five deep punctiform impressions on the third lateral margin, strongly impressed. The general colour is of a dark brilliant brown; the elytra are bronzed, lower side of the body, legs, parts of the mouth and antennæ brown.

Melbourne.

Note.—This insect is nearly allied to *Paroensis*, but it is distinguished by its brilliant appearance; the elongated form of the posterior thorax, the depth of the impressions, the punctiform impressions of the elytra much larger, &c.

*Harpalus Oblongisculus*: length  $4\frac{1}{3}$ ' to 5'; body oblong, with the sides almost parallel, of a dark brown, rather brilliant; head faintly impressed between the eyes; thorax almost square, rather rounded, and marginated laterally with the longitudinal sulcate, the anterior transverse impressions, and the two rounded posterior ones well marked; elytra

rather long, parallel, striated, with a very short extra striæ near the scutellum; a punctiform impression is seen behind between the second and third striæ, and a series of impressions extend near the margin, more numerous on the posterior half of its length; legs black; tarsi, antennæ and palpi brown.

Brisbane.

*Harpalus Punctiferus*: length  $4\frac{1}{3}'$ ; oval, sub-depressed; dark brown; head and thorax rather brilliant, the first with two rather strong punctiform impressions between the eyes; thorax transverse, rounded and marginated laterally, with the anterior angles prominent; the anterior margin rather advanced and rounded in the middle, posterior angles rounded, the thorax impressions pretty strong; elytra oval, rather depressed, not brilliant, striated, a short extra striæ near the scutellum, between the first and second striæ; eight to ten punctiform impressions dispersed on each elytra, more particularly between the second and third, and fourth and fifth striæ; a series of impressions extending only on the posterior half of the margin, lower side of the body brilliant, a punctiform impression on each side of the abdominal segments; legs, parts of the mouth, and first three articles of the antennæ of a light brownish red, the remaining part of the antennæ rather darker.

Brisbane.

Note.—This insect is very nearly allied to Mr. MacLeay's *Picipes*, but is more depressed and of a dull color.

*Harpalus Paroensis*: length  $3\frac{1}{2}'$ ; this insect is very nearly allied to *Punctiferus*, and differs only by its smaller size, and the elytra having only one series of punctiform impressions between the second and third striæ.

From the Paroo River.

*Harpalus Rugosipennis*: length  $5\frac{1}{3}'$ ; of a dull black; head large, round, feebly impressed in front; thorax transversal, a little narrower in front than behind, with the sides rounded; there is a longitudinal sulcate in the middle and a strong impression near each of the four angles; the whole surface is unequal and covered with a strong puncturation, better marked on the sides than towards the centre; elytra broader than the thorax, rather depressed, covered with narrow striæ, the sutural one bifurcated in front; the entire surface is covered with large, irregular impressions; under side of the body and legs of a rather brilliant black; antennæ and parts of the mouth black.

Melbourne.

*Harpalus Sculptipennis*: length  $4\frac{1}{2}'$ ; black, brilliant, rather bronzed; head nearly smooth; thorax transverse, quadrilateral, with the front angles rounded, and the posterior ones straight; the front transverse impression very feeble, the sulcate moderate, the two posterior impressions rather short but deep, the lateral margin becoming much broader towards the posterior angles; elytra oblong, striated, with an abbreviated striæ near the scutellum; the intervals of the elytra covered with very numerous impressions; the elytra are very strongly emarginated near their extremity, and the margins are more densely impressed than the surface; the extremity of the palpi and the first article of the antennæ of a reddish brown.

King George's Sound.

*Harpalus Sculpturalis*: length  $3\frac{1}{4}'$ ; very much like the precedent, but smaller and of a copper colour; the thorax is more rounded laterally; tibiæ and tarsi of a reddish brown, with the apex of the former black; two first articles of the antennæ red; palpi variegated with red and black.

King George's Sound and Swan River.

*Harpalus Inæqualipennis*: length  $5'$ ; black; head large, rounded, rugous; thorax short, transverse, rather cordiform, rounded laterally, with the posterior angles rather obtuse; it is narrower in front than behind; entirely rugous, with a feeble transverse impression in front, a moderate longitudinal sulcate on the centre, and two strong and elongated impressions behind; elytra broader than the thorax, oblong, depressed, very strongly emarginated at their posterior part; striated and covered with very irregular impressions; lower side of the body and legs of a more brilliant black than the upper side.

King George's Sound and Swan River.

*Harpalus Alternans*: length  $6'$ ; black; head large, rounded, strongly impressed in front; thorax a little broader than long, rounded laterally, with the anterior angles rather advanced, and the posterior ones obtuse and lightly directed upwards; the anterior transverse impression is very feeble, the sulcate moderately marked; the posterior impressions feeble and elongated; elytra oblong, rather broader than the thorax, very strongly emarginated externally near the apex; they are striated; behind the sutural striæ is an abbreviated one which extends to about the first fourth of the total length of the elytra. On the intervals between the second, third, fourth, fifth, sixth, and seventh striæ are series of strong punctiform

impressions, which extend on all the length; the margin is also similarly impressed; lower side of the body and legs of a brilliant black; antennæ black.

One single specimen of this insect was found near Brisbane, by Dr. Howitt.

*Harpalus Montanus*: length  $5\frac{1}{2}'$ ; black, with a very faint shiny tinge; almost as long as broad, with the sides rounded; the longitudinal sulcate, front transverse impression, and the two elongated posterior ones, rather feebly marked; the lateral sides of the thorax not sensibly bordered; elytra a little broader than the thorax, oval, rather depressed, striated; having a series of six to eight punctiform impressions between the second and third striæ; a series of impressions extend near the margin on the posterior half of its length; the thighs are black, the tibiæ and tarsi of a brownish red, the same as the antennæ and palpi.

Pine Mountains, near Ipswich, in Queensland.

*Harpalus Impressipennis*: length  $4\frac{1}{2}'$ ; of a dark bronzed colour; head rather large, having in front two punctiform impressions united by a transverse line; thorax transverse, rounded laterally, with the angles rather rounded; a feeble transverse impression in front, a weak longitudinal sulcate in the centre, and behind two impressions feebly marked, but broad; elytra oval, rather depressed, striated; the abbreviated stria of the basis well marked; five punctiform impressions on the third striæ, three or four between this and the second on the posterior part of the elytra, and from three to five on the fifth striæ; a series of impressions on the margin; lower side of the body black, legs, palpi, and first article of the antennæ brown; remaining articles of the last obscure.

Rockhampton. Found by Mr. Thouzet.

*Harpalus Rana*: length  $4\frac{1}{2}'$ ; broad; black; head large, feebly impressed; thorax broad, rather short, very much rounded laterally, as broad in front as behind; posterior angles obtuse; the transverse impressions in front hardly visible; the longitudinal sulcate moderately marked, but the two posterior impressions strongly so; elytra oval, broad, striated; the abbreviated striæ very short, the margin feebly impressed in front and behind; lower side of the body more brilliant than the upper surface; legs black, palpi red; first article of the antennæ of the latter colour; the three following black and shiny, the others brown and hirsute.

Melbourne.

*Harpalus Wilcoxii*: length  $5\frac{1}{4}'$ ; very much like *Striato-punctatus*, Gyl. (*Quadripunctatus*, Dej.), and of the same size and general form, but has, generally, no punctiform impressions on the elytra; thorax a little longer and not quite so broad.

The insect is of a brilliant black with the exception of the elytra, which are opac; antennæ brown, with the first article lighter; palpi of the last colour; legs black, with brown hair on the tarsi.

Brisbane, Clarence River and Sydney.

*Harpalus Edwardsii*: length  $5'$ ; very nearly allied to *Infelix*, but the thorax is broader; the posterior impressions are more deeply marked; elytra more feebly so.

The insect is of a dark æneus green, with a bluish tinge; the lower side of the body and legs black; the antennæ very dark, with the first and the last articles red; palpi of the latter colour.

Given to me by Mr. Edwards, who found it near Melbourne.

*Harpalus Vandiemensis*: length  $5'$ ; oval; of a dark copper colour; head rounded, very feebly impressed; thorax rather transversal, a little broader behind than in front, with the sides and angles rather rounded; it bears no appearance of the anterior transverse impression, but the longitudinal sulcate, and the two posterior impressions are moderately marked; the two latter are united by a transverse line; elytra oval, striated; an abbreviated striæ, and a faint impression on each side near the scutellum; a punctiform impression behind, between the second and third striæ, the lateral margin impressed; lower side of the body and thighs black; tibiæ, tarsi, palpi, and antennæ red, the second, third and fourth articles of the latter in part black.

Tasmania.

*Harpalus Planoimpressus*: length  $4\frac{1}{3}'$ ; oval; head feebly impressed; thorax transverse, rounded laterally, with the anterior angles rather advanced, the posterior ones rather rounded; impressions moderately marked; elytra oval, rather depressed, with striæ, the intervals of which are plane; an abbreviated stria near the scutellum; the intervals between the second, third, and fourth striæ covered with light but rather broad flattened impressions, extending over the two anterior thirds of the length; margin impressed on its posterior half.

The insect is of a dark metallic brown; the elytra rather

copper colour; lower side of the body, legs, antennæ, and parts of the mouth of a reddish brown.

Brisbane.

*Harpalus Peronii*: length  $3\frac{2}{3}'$ ; oval, depressed; head feebly impressed; thorax transversal, with the sides rounded; it is about as broad in front as it is behind; the anterior angles are rather advanced, the posterior ones obtuse; on the anterior margin are a few longitudinal striolæ, very faintly marked; the anterior impression is feeble; no longitudinal sulcate visible; two rather strongly marked rounded impressions behind; elytra broader than the thorax; oval, with rather feeble striæ, the intervals of which are flat; a small abbreviated stria near the scutellum, united with the second stria; margin impressed.

The insect is black, with the thorax of a dark copper colour; the tibiæ and three first articles of the antennæ red.

King George's Sound.

*Harpalus Flindersii*: length  $3\frac{1}{2}'$  to 4; body oblong; head large, with the two front punctiform impressions well marked elongated and united by a transverse line; thorax rather transverse, very much rounded laterally, with the angles also rounded; the front impression and the longitudinal one very feeble, but the two posterior impressions strong; elytra with striæ much deeper towards the extremity than on the other part; a very short abbreviated one near the scutellum; impressions on the anterior part and on the posterior half of the margin; posterior tibiæ curved. The colour is a dark shining brown; lower side of the body of a dark red; legs, antennæ, palpi, yellow; mandibulæ brown, with their extremity red.

Rockhampton.

Note.—On most specimens there is on each elytra, backwards and between the fourth and fifth striæ, a longitudinal depression.

*Harpalus Quadraticollis*: length  $4\frac{1}{4}'$ ; of a brilliant black; head oval, with two punctiform impressions in front of the eyes; thorax almost square but rather cordiform, a little broader in front than behind; the sides are rounded, the anterior angles also, the posterior ones straight; the anterior transverse impression is feeble, but the longitudinal sulcate and the two posterior impressions are very deep; elytra oval, considerably broader than the base of the thorax, covered with deep longitudinal striæ, the intervals of which are con-

vex ; two punctiform impressions on the posterior part of the second stria ; the margin is impressed ; lower side of the body very brilliant ; abdominal segments strongly impressed on each side ; legs, palpi, and labrum brown ; antennæ brown, hirsute, except on the first four articles.

Sydney and Brisbane (Queensland).

*Harpalus Marginicollis* : length  $3\frac{1}{3}'$  ; elongated ; of a dark bronzed colour, almost black, and brilliant ; head smooth, with two very faint impressions in front ; thorax rather transverse, with the sides rounded, the anterior angles advanced, the posterior angles almost straight and rather rounded ; it is rather broader behind than in front, the lateral margin is yellow ; elytra depressed, oval, striated, with intervals between the striæ plane ; a series of seven or eight punctiform impressions extends between the second and third stria, and one single impression appears on the interval between the fourth and fifth, near the middle of the length ; a series of impressions extends on the second half of the margin ; lower side of the body black and brilliant, as are also the thighs ; tibiæ, tarsi, palpi, and basal article of the antennæ of a light brown, remainder of the latter dark.

Melbourne.

*Harpalus Velox* : length  $2\frac{1}{2}'$  ; form oval, of a green metallic colour ; head with two punctiform impressions in front of the eyes ; thorax transverse, with the sides very rounded, the anterior angles almost straight, the posterior rather rounded, the anterior transverse, and the central longitudinal impressions very feeble, the two posterior ones strongly marginated ; in some specimens a third impression appears in the middle of the posterior part of the margin ; elytra oval, subdepressed, having striæ which do not extend to the lateral margin but leaving a space smooth ; the sutural stria flexuous towards the scutellum, but the abbreviated stria of that part generally missing ; a punctiform impression behind, between the second and third striæ ; the posterior part of the margin marked with impressions ; lower side of the body and thighs black ; tibiæ, palpi, and antennæ brown, first article of the latter lighter.

Melbourne, common.

*Harpalus Yarræ* : length  $3\frac{3}{4}'$  ; general form short and thick ; of a rather brilliant black ; head rather large, very feebly impressed in front ; thorax transversal, very rounded laterally, with the anterior angles rather prolonged and impressed, the posterior ones well marked, the longitudinal

sulcate and the two posterior impressions also rather deep ; elytra rather short, broad and depressed, covered with striæ, the intervals of which are not convex ; a rather irregularly situated punctiform impression between the second and third stria, much nearer to the first of the two ; a very short abbreviated stria near the scutellum ; a line of impressions on the lateral margin ; lower side of the body and thighs of a brilliant black ; tibiæ of a very dark brown ; tarsi of a lighter colour ; antennæ of a dark brown ; palpi rather reddish.

Melbourne.

Note.—I have preserved the name under which this insect is distinguished in various collections ; I believe it is attributed to Mr. MacLeay. It is nearly allied to Dejean's *Æreus*, and still more so to Germar's *Inornatus*, but its thorax is much broader, and the elytra more strongly striated.

*Harpalus Kreftii* : length  $4\frac{2}{3}$ ' ; general form rather broad ; of a brilliant black ; head and thorax of a dark copper colour, head rather large, strongly bi-impressed between the eyes ; thorax transversal, with the anterior angles very rounded, and the posterior rather obtuse ; it has on its centre a feeble longitudinal sulcate, near its anterior margin an equally feeble transverse impression, and behind two deep rounded impressions ; elytra broad, of a purple black, sinuous at their extremity, covered with striæ, the intervals of which are not elevated ; no abbreviated stria, but a light impression in the place where it generally meets the sutural stria ; a series of strong impressions on the posterior half of the margin ; legs black, the posterior thighs inflated, and forming below a rather strong angle ; tibiæ of the same pair very strongly curved ; tarsi, palpi, and antennæ brown.

Port Denison.

Named in honor of the learned curator of the New South Wales Museum.

*Harpalus Germari* : length 5' ; very nearly allied to *Serripes*, and of the same size and general oval and convex-form ; the thorax a little narrower, the striæ deeper, more particularly at their posterior part ; no punctiform impression is seen on the back part of the interval between the second and third striæ ; colour black, sometimes with a dark metallic tinge ; extremity of the palpi and first article of the antennæ yellow.

Melbourne.



*Harpalus Erichsoni*: length  $5\frac{1}{2}'$ ; size and general form of *Cupreus*, Dej.; head with two slight impressions before the eyes; thorax almost square, rather transversal, narrowing a little in front, and rounded towards the anterior angles; the longitudinal central sulcate is very feeble, as also the transverse anterior impression; the two longitudinal impressions of the posterior margin better marked, the posterior angles straight; elytra oblong, of the breadth of the thorax, covered with strong striæ, of which the sutural one is rather rounded near the scutellum; between that stria and the second, in the same part, is a short oblique line; a faint punctiform impression is generally seen between the second and third interval on its posterior part; a series of deep impressions extends on the posterior half of the margin.

The insect is sometimes of a brilliant black, and sometimes of a copper colour; the legs are black; the antennæ of a dark brown, with the first article palpi and tarsi of a light colour.

Melbourne.

*Harpalus Ranula*: length  $3\frac{1}{4}'$ ; body short and broad, of a very brilliant black; head rounded, feebly impressed; thorax broad, rather short, very rounded laterally, a little narrower in front than behind, with the posterior angles obtuse and rather rounded; the front transverse impression, the longitudinal one, and the two posterior, are moderately marked; between the two last are one or several transverse impressions; elytra broad, oval, rather convex, covered with striæ, the sutural of which is rather arched in front, but there is no abbreviated stria, the intervals of the striæ are plane, till towards the end, where they become convex; no punctiform impressions on the elytra, with the exception of the margin, which has a series of considerable ones; lower side of the body, legs and antennæ brown; first article of the, latter and palpi yellowish.

Melbourne.

*Harpalus Tasmanicus*: length  $4'$ ; general form rather broad; head rather large, with two small punctiform impressions, united by a faint transverse line in front; thorax short, transverse, rounded laterally, considerably narrowed posteriorly, with the posterior angles straight, the anterior rounded; it has a strong transverse impression in front, a longitudinal sulcate in the centre, and two well-marked impressions behind; elytra oval, rather short, deeply striated; no abbreviated stria near the scutellum; a puncti-

form impression behind, between the second and third striæ; margin impressed on all its length; abdominal segments very feebly impressed laterally; the entire insect is black, with the extremity of the palpi and the first article of the antennæ of a brownish red.

Tasmania.

*Harpalus Amaroides*: length  $4\frac{3}{4}'$ ; copper colour, rather brilliant and smooth; head very feebly impressed in front; thorax large, almost quadrilateral, with the sides nearly straight; it is rather transverse, a little broader behind than in front, with the angles rounded; all the impressions are visible, but very feebly marked; elytra large, broad, depressed, sinuated behind, striated with an abbreviated stria, near the scutellum; the intervals between the striæ are very plane, a very faint punctiform impression behind, between the second and third striæ, a line of impressions on the margin; those impressions very large on the posterior part; lower side of the body and legs black, tibiæ, tarsi, and antennæ, of a reddish brown.

Brisbane, Queensland.

*Harpalus Infelix*: length  $4\frac{1}{4}'$ ; of a rather brilliant black; general form oblong; head with two strong punctiform impressions united by a transverse line in front; thorax almost square, long, very little transverse, rounded laterally, rather narrower behind than in the middle, but broader than in front; anterior angles advanced, posterior ones rather rounded; all the thoracic impressions feebly marked; elytra rather strongly striated, with an abbreviated stria near the scutellum; a punctiform impression behind, between the second and third striæ; the series of marginal impressions strongly marked on the posterior half of the elytra; tarsi, palpi and antennæ brown, the second, third and fourth articles of the latter in great part dark, and almost black.

Rockhampton, Queensland.

*Harpalus Lapeyrousii*: length 5'; black, oblong; head rather large, with the frontal punctiform impressions prolonged transversely backwards, so as almost to meet each other; thorax rather transversal, about as broad behind as in front, with the sides rounded, the anterior angles rather advanced, and the posterior ones almost straight; no front transverse line, but the longitudinal one and the posterior impressions moderately marked; elytra rather oblong, sinuated behind, they are covered with rather strong striæ, the abbreviated one well marked, and joining the

sutural, a punctiform impression a little behind the middle, between the second and third striæ, the margin impressed at the base, and on the posterior half; lower side of the body black and brilliant; legs, antennæ, and parts of the mouth black.

Sydney.

*Harpalus Coxii*: length  $3\frac{3}{4}$ '; size and general form of *Ambiguus*; of a dark copper green; head rather large, with two punctiform impressions in front, united by a transverse line; thorax transverse, very rounded laterally, having a transverse impression in front, a longitudinal sulcate in the middle moderately marked, and two impressions behind, strongly so; elytra broader than the thorax, rather short, depressed, covered with striæ, the intervals of which are not elevated; a short one near the scutellum; a feeble punctiform impression is seen behind on the inner side of the second stria, and a line of impressions extends along the margin; lower side of the body black and brilliant, the abdominal segments impressed laterally; legs, antennæ and palpi of a dark brown.

Clarence River.

Named in honor of Dr. Cox, of Sydney.

*Harpalus Kingii*: length  $3\frac{1}{2}$ '; about the size of *Alpestris* Redt.; form rather broad and depressed; of a dark brilliant brown, sometimes rather æneus; head rather large, slightly impressed in front; thorax transverse, rather quadrangular, with the angles rounded; the front transverse impression and the longitudinal sulcate are very faint, but the two posterior impressions are deep; elytra rather broader than the thorax, oval, striated; the intervals of the striæ not elevated; a very short abbreviated stria near the scutellum; a punctiform impression behind, between the second and third striæ; a line of impressions on the posterior half of the margin; lower side of the body and thighs of a dark brilliant brown; tibiæ and tarsi reddish; palpi and antennæ brown.

King George's Sound.

Named in honor of the Rev. Mr. King, of Paramatta.

*Harpalus Antarcticus*: length  $2\frac{1}{2}$ '; about the form of *Æneus*, but very much smaller; copper colour; head smooth, with a transverse line in front; having a punctiform impression at each end; thorax almost quadrangular, transverse, rather rounded and bordered laterally; a feeble impression near each anterior angle, and a strong one behind; a feeble transverse impression in front, and a longitudinal striæ on

the middle very little marked; elytra rather short, depressed, striated, a feeble punctiform impression behind, between the second and third striæ, and a line of impressions on the lateral margin; lower side of the body of an æneus brown, very brilliant; legs brown, with the extremity of the tibiæ obscure; palpi and antennæ brown, the basal article rather red.

From Dunedin, New Zealand, and also from the North Island.

*Harpalus Novæzelandiæ*: length 5'; body broad and depressed, of a light brown; head round, with two punctiform impressions between the eyes; thorax short, transverse, rounded laterally, with the anterior angles rounded, and the posterior ones obtuse and rather prominent; there is a transverse impression in front, a feeble longitudinal sulcate on the middle, and two broad impressions behind; elytra broad, striated, with a broad abbreviated stria near the scutellum, after the sutural one; a feeble punctiform impression behind, on the interval between the second and third striæ; the margin impressed on its posterior half; abdomen not sensibly impressed laterally; legs, antennæ, and parts of the mouth of a light brown.

This insect is from the northern island of New Zealand.

*Harpalus Illawarensis*: length  $4\frac{1}{3}$ '; æneus green, brilliant; head smooth, with two short transversal impressions in front of the eyes; thorax rather quadrangular, transverse, rounded on the anterior half of the lateral sides; the posterior angles rather rounded; in the centre, a feeble longitudinal sulcate and two equally feeble impressions behind; elytra rather broader than the thorax, oval, depressed, striated, with the intervals between the striæ, not convex; a punctiform impression behind, between the second and third striæ, and a series of impressions on the margin; these latter more numerous on the posterior part than on the other; legs black; palpi and antennæ brown; the first article of the latter of a lighter colour.

Illawarra.

*Harpalus Adelaidæ*: length 3'; elongated; copper colour; head slightly bi-impressed in front; thorax almost square, very little broader than long, the sides rounded and the angles also, the posterior ones rather obtuse; the transverse impression is feeble; the longitudinal sulcate moderately marked, and the two posterior impressions deep; elytra oblong, elongated, with striæ, the intervals of which are

plain; a very feeble abbreviated striæ towards the scutellum; between the second and third striæ extends a series of six or seven punctiform impressions; the posterior part of the margin is also impressed; lower side of the body and thighs black; tibiæ of a reddish brown, obscure towards the end; tarsi, palpi, and first article of the antennæ of a light brown, the remaining articles of the latter of a dark colour.

Note.—Some specimens are rather broader and of a dark metallic brown.

From Adelaide and Port Lincoln, in South Australia, and also King George's Sound.

*Harpalus Brunneus*: length 3'; rather short; of a brilliant brown; head very feebly bi-impressed in front; thorax transverse, rounded laterally, with the anterior angles prominent, the posterior ones obtuse; the impressions moderately strong; elytra oval, short, rather feebly striated; the sutural stria diverging near the scutellum; between the second and third striæ are three punctiform impressions; one near the base, another towards the middle, and the third behind; margin rather feebly impressed on all its length; lower side of the body, legs, palpi, and antennæ of a reddish brown.

Adelaide and Swan River.

*Harpalus Dampierii*: length  $4\frac{1}{4}'$ ; of a dark brown, brilliant; head round, with two impressions in front, united by a transversal sulcate; thorax cordiform, short, rounded laterally, with the transverse front impression hardly visible; a faint longitudinal sulcate and two posterior impressions rather broad and deep; elytra broad and short, much wider than the thorax; very strongly striated; the two first striæ rather diverging towards the scutellum, but no visible abbreviated striæ; the margin impressed; lower side of the body, legs, parts of the mouth and antennæ of a light brownish red.

Swan River and King George's Sound, and also Port Lincoln (South Australia).

*Harpalus Fortnumi*: length  $3\frac{1}{2}'$ ; brown, brilliant; general form rather short and broad; head impressed between the eyes; thorax transverse, as broad in front as behind, very much rounded laterally; the front impression very faint; the longitudinal sulcate well marked, as also the two posterior impressions; the latter are longitudinal and narrow; the anterior angles are rounded and the posterior obtuse; the surface is covered with undulating transverse striolæ, which become longitudinal towards the posterior margin;

the elytra are oval, broad, truncated in front, convex, striated; the first stria bi-furcated in front; the margin impressed; legs and antennæ of the general colour; mandibulæ and labrum dark; palpi of a light yellowish brown.

Adelaide.

*Harpalus Boisduvalii*: length  $3\frac{3}{4}'$ ; very nearly allied to *Australis*, Dej., but having the thorax broader, shorter, more rounded laterally; the elytra broader and not so deeply striated; the thorax is often of a brilliant and rather metallic colour.

Swan River.

*Harpalus Bostockii*: length 4'; of a brilliant green copper colour; head rather small, rounded; thorax transverse, about as broad behind as in front, rounded laterally, with the posterior angles obtuse, and the anterior rounded; the impressions are moderate; elytra broad, rather depressed, marked with slight striæ, the intervals of which are plane; the sutural stria deviates towards the scutellum, and there is a light abbreviate stria; a small punctiform impression is seen on the posterior part between the second and third striæ; the margin is impressed; legs of a brownish red, with the thighs and end of the tibiæ black; antennæ dark, with the two first articles red, as are the palpi.

Swan River.

*Harpalus Versicolor*: length 4'; broad; of a reddish brown; elytra of a dark brown; head almost round, rather rugous, and impressed in front; thorax transverse, rather cordiform, much narrower behind than in front, with a light longitudinal sulcate, and two equally light posterior impressions; elytra strongly striated, almost sulcated, impressed laterally; no abbreviated stria near the scutellum; the humeral part of the margin is yellow; lower side of the body of a light brown; legs and parts of the mouth yellow.

Swan River.

*Harpalus Deyrolii*: length  $3\frac{1}{2}'$ ; of a light bronzed colour; head rounded, with a transversal line in front; thorax transverse, rounded laterally, as broad behind as in front; having a well marked transverse impression in front, a feeble longitudinal sulcate and two weak impressions behind; elytra oval, with feeble longitudinal striæ, rather far apart one from the other, and the intervals of which are plane; the sutural one deviates towards the scutellum, and there is a very short abbreviate stria; margin very feebly impressed; lower

side of the body of a light brown; legs, parts of the mouth and antennæ yellow.

Port Lincoln, South Australia.

*Harpalus Femoralis*: length  $3\frac{1}{4}'$ ; black; rather brilliant; head with two punctiform impressions united by a transversal line in front; thorax almost square, transverse; as broad behind as in front, having all its impressions feebly marked; elytra rather broad, strongly striated; the second stria bifurcated near the scutellum; posterior part of the margin impressed; a feebly marked punctiform impression behind on the interval between the third and fourth striæ; thighs black; tibiæ, tarsi, palpi and antennæ of a light red.

Rockhampton, Queensland.

*Harpalus Mandibularis*: length  $2\frac{2}{3}'$ ; of a bronzed green colour; body rather broad and depressed; head smooth, with a strong sulcate in front; thorax broad, transversal, with the sides very much rounded but straight behind; the anterior angles are rounded, and the posterior straight; the central longitudinal sulcate and the two posterior impressions are strong, the anterior transverse one is feeble; elytra rather broader than the thorax, oval, depressed, having longitudinal striæ, the intervals of which are not convex; a very feeble abbreviated stria near the scutellum; a row of impressions on the margin; lower side of the body brown; legs, palpi, and base of the antennæ yellow; remainder of the latter a little darker; mandibulæ yellow at the base, and black towards their extremity.

Port Denison.

*Harpalus Dingo*: length  $2\frac{1}{2}'$  to  $3'$ ; general form rather depressed; of a dark brilliant brown; head large, rounded, having a faint impression in front; thorax almost square, broader in front than behind, rounded laterally; the impressions very faint; scutellum brown; elytra oval, striated; an abbreviated stria near the scutellum; a very faint punctiform impression behind, between the second and third striæ; margin having on its posterior half a series of strong impressions; lower side of the body black; inferior margin of the elytra brown; legs, palpi, and three first articles of the antennæ yellow, the remaining of the latter obscure.

Rockhampton.

*Harpalus Novæ Hollandiæ*: length  $3\frac{1}{2}'$ ; nearly allied to *Rubripes*, but smaller; of an æneus copper green; head with two impressions before the eyes; thorax rather transversal, rounded and bordered laterally; narrower in front

than behind ; the anterior angles moderately prominent, the posterior ones rather obtuse ; the longitudinal sulcate very obliterated, hardly perceptible ; a light transverse impressions in front and another behind ; two rather strong rounded impressions on the posterior part ; elytra a little broader than the thorax, oval, rather depressed, striated, with the intervals of the striæ not elevated ; a light punctiform impression behind, between the second and third striæ ; a series of strong impressions on the posterior half of the margin ; lower side of the body of a dark brown, thighs black ; tibiæ strongly arched, with their extremity obscure ; tarsi, palpi, and first article of the antennæ red ; the remaining articles of the latter obscure.

Common near Melbourne.

Note.—This insect is nearly allied to *Areus*, Dej., but is easily distinguished by the form of the thorax, &c.

#### *Trigonotomidæ.*

The only Australian group that Mr. Lacordaire mentions as belonging to this family is *Amblytelus*, but this is evidently not in its right place, which seems to me to be near *Dyscolus* in an artificial system, or near *Phylophilæus* in a natural one ; on the other hand, I have several species of *Drimostoma*. These insects have entirely the facies of the genus, but their mentum has a pointed tooth, equal in length to the wings, which are broad, rounded and pointed at the apex.

*Drimostoma Australis*: length 3' ; of a brilliant dark brown ; head elongated ; thorax transverse, rounded laterally, rather broader behind than in front ; having a deep longitudinal sulcate and two other deep impressions behind ; elytra large, convex, oval, much broader than the thorax, rounded at the humeral angles ; legs, antennæ, and parts of the mouth of a dark reddish brown.

Mountains of Victoria.

*Drimostoma Montana*: length  $3\frac{3}{4}$ ' ; differs from precedent by its larger size, its more elongated form ; thorax not so narrowed in front ; elytra oblong, not sensibly broader than the widest part of the thorax ; the striæ of the elytra appear crenulated laterally when seen through a magnifying power ; the thorax is not marginated laterally ; legs, antennæ, and parts of the mouth of a reddish brown.

Mountains of Dandenong, Victoria.

*Drimostoma Thouzeti*: length  $2\frac{3}{4}$ ' ; of a rather brilliant



black ; thorax short, rather cordiform, margined laterally, with the impressions well marked and rather broad ; elytra oblong, not broader than the thorax at its greatest breadth, oblong, very strongly striated, margin impressed ; legs, palpi, and base of antennæ of a light red ; the remainder of the latter of a dark colour.

From Rockhampton, Queensland.

Note.—In this sort the elytra are much more oblong than in *Montana*, and the thorax much more attenuated behind.

*Drimostoma Vicina*: length 3' ; very much like *Thouzeti*, but more elongated ; thorax not so broad ; elytra rather broader than the thorax at its greatest breadth ; their striæ not so deep.

Rockhampton, Queensland.

*Drimostoma Alpestris*: length  $3\frac{2}{3}$ ' ; much like *Montana*, but broader and thicker ; thorax wider ; elytra more convex, with strong but simple striæ ; legs, palpi, and antennæ of a light red.

Mountains of Victoria.

*Drimostoma Antarctica*: length 4' ; of a brilliant black ; thorax cordiform, rather transverse ; the longitudinal sulcate and the posterior impressions rather deep ; elytra oblong, going decreasing in breadth from nearly the basis to near the apex, very feebly striated ; a few impressions on the margin ; legs and parts of the mouth of a dark brown, antennæ red.

New Zealand, Wellington, in Dr. Howitt's collection.

*Drimostoma Striato-punctata*: length  $2\frac{1}{2}$ ' ; of a dark glossy brown ; thorax almost round, rather transverse ; the impressions moderately marked ; numerous punctiform impressions cover the posterior part ; elytra broad, oval, convex, covered with striæ, formed with punctiform impressions ; inferior margin of the elytra, legs, palpi, and antennæ of a light red.

New Zealand, Nelson ; in Dr. Howitt's collection.

*Drimostoma (?) Tasmanica*: length 2' ; of a dark brown, very smooth and brilliant ; head rather large, impressed in front ; thorax cordiform, broader than long, convex, with a transverse anterior impression, a longitudinal sulcate and two broad posterior impressions ; elytra oval, gibbous, smooth ; legs, parts of the mouth and antennæ of a light red.

Tasmania ; it is doubtful that this insect belongs to the genus.

*Feronidæ.*

The family of *Feronidæ* is most numerously represented in Australia, and when the mountains of that continent, which form the place of residence of most species, will have been thoroughly explored, I do not doubt that their numbers will be at least as considerable as the one belonging to the European Fauna.

I begin the study of this family by the description of several new genera belonging to it. *Feronia* proper is the most difficult group of all *Carabidæ*, on account of the great number of its species. I will describe at first those of Australia proper, and afterwards those of New Zealand

## ZEODERA.

Mentum deeply emarginated, with a strong tooth in the centre; the wings broad, pointed at the apex, rounded externally; labrum transversal; mandibulæ strong, arched, subcarinated, pointed at the apex; palpi: maxillæræ with their first article short, the second long and compressed, the third conical, the last rather longer than the precedent, thicker, rather rounded externally, and broadly truncated; the labial with their first article short, the second very long, the last large, broad, truncated, almost securiform; antennæ filiform, rather long, with the first article large, the second shorter than the third, which is nearly as long as the first; the others of equal length. Tarsi with the three first articles of the first pair strongly dilated in the male, the first longer than the others; they have below two rows of squamulæ and spiny hair; the tarsi of the other two pair are simple, with the first article as long as the two following; in the female the anterior tarsi are not dilated, the head is oval; the thorax large, almost square, rather broader behind than in front, sulcated in the middle, and having two long impressions behind; elytra oval and depressed, no abbreviated striæ near the scutellum; legs rather strong, the anterior deeply emarginated and having a strong terminal spine, and another over the emargination. The absence of the abbreviated striæ near the scutellum, and the form of the palpi brings this genus near *Microcephalus*, but in the latter the palpi are very strongly securiform, and obliquely truncated.

*Zeodera Ater*: length 10'; oblong, of a brilliant black; elytra very deeply striated, almost sulcated, with punctiform

impressions on the interval between the second and third striæ, a little after the middle of the length, the margin impressed; tarsi and antennæ brown.

Clarence River.

#### ECCOPTOGENIUS.

This genus of Baron Chaudoir being very little known, I give here the generic characters of the Australian species. Mentum broad, transverse, emarginated; the excavated part having no tooth, but being convexly rounded; the wings broad, rounded externally, obliquely truncated internally. Labrum transverse, very strongly emarginated in form of a half-moon; palpi long, the maxillary with their first article short, the second long, arched, rather broad, and depressed; the third shorter, but still rather long and convex; the last rather longer than the former, oblong, elongated, truncated at the apex; the labial have their first article small, the two following long, the last oblong, truncated at the apex. Antennæ moderately long, the first article strong, the second rather shorter than the others, which are about equal. Mandibulæ strong, very slightly arched, carinated, maxillæ slender, arched, ciliated inside; tarsi having their first article longer than the others; in the male the three first articles of the anterior tarsi are dilated, and have squamulæ.

The insect I refer to this genus, has entirely the form of a small *Feronia* of the *Pterostichus* group, but it is distinct by its marginated labrum.

Mr. Lacordaire describes the labrum of *Eccoptogenius* as being angularly emarginated, but this is not the case in five or six Indian species which are in my collection.

*Eccoptogenus Feronoides*: length  $3\frac{2}{3}'$ ; of a dark bronzed colour, almost black; head rather small, oval, impressed in front; thorax lightly cordiform, rather narrower behind than on the anterior part; anterior angles rounded, posterior ones almost straight; the impressions well marked, and a light centre impression on the posterior angles; elytra broader than the thorax, oval, strongly striated; a short, abbreviated stria near the scutellum, after the sutural one; the margin impressed; legs of a dark brown, almost black; antennæ and palpi of a light red brown.

Deep Creek.

Note.—This is entirely an Indian form; the genus was formed on a species from the north of India, but I have taken several others in Siam.

## CERABILIA.

Mentum broad, transverse, emarginated, without a tooth in the emargination; wings of the mentum very broad, rounded laterally, pointed at the apex. Labrum almost square, rather transverse, entire; mandibulæ rather strong, arched, pointed. Palpi with their last article oval, fusiform, pointed at the apex. Antennæ rather long, with the first article strong and thick, the second conical and short, the third a little longer, the others equal; the last oval. Tarsi with their first article longer than the others; the anterior having, in the male, their first three articles broad, triangular, and furnished underneath with squamulæ and spiniform hair. Head rather small, oval; thorax almost square, rather transverse; elytra oval, rather depressed, no appearance of an abbreviated stria; thighs rather strong; tibiæ rather slender, straight, the posterior rather arched; the anterior becoming thick towards the apex, strongly emarginated, and ended by a spine, with another at the top of the excavation; all the tibiæ having a row of spines; the form of the tarsi clearly show, that this insect belongs to the *Feronidæ*; the absence of the abbreviated stria of the elytra, and the form of the palpi clearly distinguishes it from all the known genera of that family.

*Cerabilia Maori*: length  $4\frac{1}{3}$ ' ; of a dark brown; thorax with a feeble transverse impression in front, a moderately marked longitudinal sulcate, and two narrow impressions backwards; elytra feebly striated, with the margin impressed backwards; legs, palpi, and antennæ of a reddish brown.

From Dunedin, New Zealand.

## TIBARISUS.

Mentum deeply emarginated, with the central part advanced and rounded; wings large, broad, pointed at the extremity, rounded on the external side. Labrum transversal, emarginated in front. Mandibulæ large, prominent, as long as the portion of the head extending behind their bases; they are broad, subcarinated, rounded towards the extremity, pointed at the apex, without teeth on the inner side, and rather curved downwards. Palpi: *maxillare* long, the first article very small; the second very long, curved, compressed; the third more slender, conical, rather shorter than the precedent; fourth of the length of the third, sub-

oval, truncated at the apex; the *labiæ* with the basal article short, the second very long, straight, the last rather shorter, straight inside, rather arched externally, and truncated at the extremity; maxillæ having its external lobe bi-articulated; the first article being much longer than the other, which is curved; the internal lobe straight, arched at the extremity, very hirsute internally. Antennæ rather long, slender; the first article large, the second conic, and shorter, the third the longest of all. Tarsi of the male having the three first articles of the anterior pair strongly dilated and triangular, the fourth much less so, and elongate; below the three first are two rows of squamulæ, and below all long spiniform hair; the other tarsi are not dilated. Body thick and heavy. Head rather large, oval; thorax having the same form as in *Abax*; scutellum short, broad, rounded behind; elytra oval, legs strong; trochanters large and oblong; tibiæ lined with short spinous hair; the anterior terminated by a strong spine, and having a second above the emarginated part; the first striæ of the elytra deviating obliquely towards the scutellum, but no abbreviated striæ.

*Tibarismus Melas*: length 9'; of a shiny black; thorax transversal, as broad behind as in front, rounded laterally, feebly impressed in front, having the longitudinal sulcate moderately marked, strongly bi-impressed on each side behind; elytra very strongly striated; the margin impressed; hair below the tarsi brown, as also the pubescence that covers the antennæ after the third article.

From Queensland (Rockhampton and Brisbane), and north of New South Wales (Clarence River).

#### FERONIA.

##### FIRST GROUP.—Omalosoma.

This group is most generally formed on insects of large size; their elytra are not properly striated, but bear large sostæ, between which striæ may sometimes be seen, in some sorts, and particularly in *Superba*; the palpi are broadly truncated, and the labial are almost securiform.

*Feronia Atlas*: length 17'; black, brilliant, with the exception of the elytra which are æneus, margins of the thorax and of the elytra having a fine copper metallic tinge, sometimes red, sometimes green; the general form short and robust; head large, smooth, with two longitudinal impressions between the eyes; thorax short, cordiform,

truncated behind, with the angles very lightly obtuse; the sides are rounded, the anterior angles advanced; there is a transverse impression in front, a longitudinal sulcate in the middle and two strong impressions behind; elytra short, oval, depressed, having each seven elevated costæ, in the intervals of which are faint punctured striæ, not visible to the naked eye, the margin is lightly impressed, two punctiform impressions on the third costæ; antennæ hirsute, except on the four first articles.

This fine insect is found in the cedar bushes on the Clarence River, and was forwarded to me by Mr. Wilcox.

*Feronia Obesa*: length 12'; very nearly allied to the precedent and may possibly be a variety of it, but smaller, still shorter and broader; thorax shorter, almost as broad behind as in front, with the sides more rounded on their anterior part, and the anterior angles very acute; the costæ of the elytra not so marked, particularly behind; the punctured striæ much stronger; the elytra are as shiny as the thorax; general color more obscure than in *Atlas*.

Clarence River.

*Feronia Solandersii*: length 12'; also very nearly allied to the two precedent, but differing from *Atlas* by its smaller size, its still broader form, its thorax much more cordiform, and narrower behind, and more rounded at its anterior part; the elytra broader, shorter and wider on their posterior part; the costæ are much less marked. From *Obesa* it is easily distinguished by its cordiform thorax; the punctate striæ are well marked on the back part of the elytra, but are not perceptible on their first part.

The insect is black, with a dark green margin on the sides of the thorax and elytra.

Found by Mr. Wilcox in the pine scrubs (*Aracuraria*) of the Clarence district of New South Wales.

*Feronia Episcopalis*: length 17'; elongated, of a beautiful purple; head with two longitudinal impressions between the eyes, these impressions present some transverse striolæ; thorax strongly cordiform, narrow behind, broad in front, rounded laterally on the anterior part, the anterior angles produced and rather rounded, the posterior ones straight and rather elevated, the anterior transverse impression, the longitudinal one, and the two posterior are deeply marked; elytra oval, elongated, with their axillary angles acute, they have eight longitudinal costæ (in counting the sutura) the seventh of which forms a light carenæ; the intervals

between the costæ are punctated; two punctiform impressions are seen on the posterior part of the third costæ, and the margin is impressed; lower side of the body and legs black, antennæ with their four first articles of the same colour, the others brown and hirsute, the mandibulæ are very long.

From Lans Cove in New South Wales.

*Feronia Superba*: length 17'; of the same colour as *Episcopalis*, but broader, head larger, thorax shorter and more rounded on the sides; elytra broader, oval, but more rounded; they have each three strong costæ, between each of which is a much smaller one; there is no appearance of punctated striæ, and the humeral angle is rounded; the male is much smaller than the female.

I owe the two sexes of this handsome insect to Dr. Howitt, who found them on the Hunter River, in New South Wales.

*Feronia Wilsoni*: length 13'; black, with the head, thorax, and margin of the elytra of a fine purple; the thorax and elytra have the form of *Episcopalis*, the latter being oval and elongated, but their costæ are more like those of *Superba*, being only three large ones, without the sutura, and other very faint ones between these; the punctated striæ which separate them are very distinct, the humeral angles are prominent, and the third large costæ forms a sort of carina.

I have only one specimen of this insect, which I received from Mr. Wilson of Brisbane.

*Feronia Hercules*: length 18'; of a fine, brilliant black, except the elytra; head large, smooth, with two longitudinal impressions between the eyes; thorax rather square, a little broader behind than in front, rounded laterally, its greatest breadth being a little before the middle of its length, it has a transverse impression in front, which is only strongly marked towards its ends, a moderate longitudinal sulcate in the middle, and two strong elongate impressions behind; elytra oval, elongated, a little broader behind than at the base, the axillary angles faintly marked, on each elytra three strong longitudinal costæ, without the sutura, and between them others much more feeble; the punctate striæ visible; three punctiform impressions behind on the first large costæ, the margin feebly impressed; antennæ, hirsute and brown, except their four first articles.

This fine insect inhabits the pine mountains of Queensland.

*Feronia Cunninghamii*: length 15'; black, brilliant, with the exception of the elytra; head impressed between the eyes; thorax strongly cordiform, with the anterior angles rather rounded, and the posterior ones straight; the transverse anterior impression is strong, the longitudinal sulcate moderate, the two posterior impressions large and broad; elytra oval, elongated, with the costæ alternately small and large, the third large one forming a considerable carina at the humeral angle, margin feebly impressed; antennæ hirsute, and brown, with the exception of the four first articles, which are smooth and black.

From Rockhampton—Mr. Thouzet.

*Feronia Viridescens*: length 13'; very nearly allied to *Cyanocincta* of Hope and Boisduval, but smaller; thorax more cordiform and much narrower behind; elytra narrower near the basis; the costæ much more equal, and the punctated striæ well marked, the humeral angles more prominent.

Clarence River.

*Feronia Nitidicollis*: length 10'; of a shiny black; upper part of the head and thorax of a fine gilt copper colour; thorax cordiform, rather short and broad, with a very faint transverse impression in front; a rather strong longitudinal sulcate in the middle, and two broad impressions behind; elytra oval, black, with a golden margin, they have the sutural and three other elevated costæ on each, and between these more very faint costæ lined with punctated striæ; the last of the large costæ forms a carena near the lateral margin; antennæ brown and hirsute, with their first four articles black and smooth.

Clarence River—Mr. Wilcox.

*Feronia Dingo*: length 10'; black, brilliant, except the elytra, which are dull; head oval; thorax rather cordiform, a little longer than broad, rounded laterally, with the posterior angles rather curled upwards, the impressions are moderately marked, the two posterior ones are broad; elytra oblong, depressed, having six sharp ridges without the sutura, the posterior half of the margin is impressed, but no punctiform impressions are seen on the surface of the elytra; legs, palpi and basal article of the antennæ of a dark red; the three following articles of the latter darker, the other hirsute.

Mountains of Victoria.

*Feronia Yarræ*: length 8'; very much like the pre-



cedent, but smaller, with the thorax longer and more attenuated behind.

Victoria.

Note.—The *Trigonostoma Violacea* of my “*Etudes Entomologiques*” belongs to this group. It is probably not, as stated, from Port Jackson, but from the north or western coast of New Holland, having been brought back by Baudin’s Expedition.

#### SECOND GROUP.—*Pterostichus*.

This group is very numerous in Australia.

*Feronia Regalis*: length 18’; of a beautiful purple; head large, bi-impressed in front; thorax cordiform, with the sides rounded on their two anterior thirds; anterior angles rather advanced, the posterior rounded; the front impression and sulcate moderately marked; the two posterior impressions elongated and deep; elytra oval, depressed, having their widest part towards the middle; they are covered with deep striæ; the intervals between two to three, four to five, and seven to eight bearing each a series of four or five deep punctiform impressions; the margin is also strongly marked with impressions; a very short oblique stria near the scutellum; lower side of the body, legs, parts of the mouth, and base of the antennæ of brilliant black, the last are from their fourth article covered with a brown villosity; the palpi are broadly truncated, and the labial almost securiform.

Very few specimens of this beautiful insect have yet been found; the one I describe was found at Kiama (New South Wales), and is in the collection of Dr. Howitt.

*Feronia Ducalis*: length 10–11½’; of a fine brilliant copper colour; head with two broad impressions between the eyes; thorax rather transverse, rounded laterally, with the posterior angles rather obtuse; the anterior ones rounded; all the impressions strongly marked; elytra oval, oblong, emarginated behind, with the axillary angles well marked; they are covered with strong longitudinal striæ; on the interval between the second and third there are on the posterior part two strong punctiform impressions; the margin is impressed; lower side of the body, legs, parts of the mouth and antennæ black.

Illawarra.

Note.—In one of my specimens there are three punctiform impressions on each elytra.

*Feronia Comes*: length 11’; of a brilliant black, some-

times rather purple ; head bi-impressed ; thorax longer than broad, as wide in front as behind ; rounded laterally ; the anterior transverse impression light, the longitudinal sulcate moderate ; the posterior impressions elongated ; elytra oblong, elongated, broader than the thorax, rather depressed, strongly striated ; the intervals between the second and third striæ having four or five punctiform impressions ; the margin impressed ; lower side of the body and legs of a brilliant black ; extremity of the palpi brown ; antennæ of the last colour, and pubescent, with their three first articles black and smooth.

Clyde River, New South Wales.

*Feronia Æques* : length 10'-11' ; very nearly allied to *Ducalis* and of the same brilliant colour, but the thorax is of the same form as *Comes* ; elytra more oval than in the latter ; between the second and third striæ there is a series of four or five punctiform impressions.

Illawarra.

*Feronia Gippsiensis* : length 10'-12' ; of a shiny black, sometimes with a copper tinge ; head oval, with the front impressions elongated ; thorax not much wider than broad ; sub-cordiform, with the angles rounded ; the front transverse impressions very faint, but the longitudinal sulcate and the posterior impressions strongly marked ; the latter elongated ; elytra oval, rather elongated, strongly striated, with a very short abbreviate stria near the scutellum ; on the interval between the second and third striæ are four punctiform impressions, and the margin is also impressed ; legs, parts of the mouth, and antennæ of a dark reddish brown ; the latter hirsute, except on its first articles.

Mountains of Gipps Land and of the Dividing Range (Victoria), the specimens from the latter generally smaller.

*Feronia Miles* : length 7½' ; colour, and almost entirely the form of *Comes*, but much smaller ; the two posterior impressions of the thorax rounded instead of being long and narrow ; elytra more elongated, narrower, the striæ deeper, and only two, or very rarely three, impressions on the interval between the second and third striæ.

Clyde River (New South Wales).

*Feronia Satrapa* : length 12'-13½' ; of a brilliant black ; head large, with the front impressions rather broad ; thorax rather short, sub-depressed, broader than long, much narrower behind than in front, with the angles rather rounded ; the impressions are moderately marked, and the entire sur-

face is covered with transverse undulated striolæ; elytra oblong, rather depressed, strongly striated; the intervals between the second and third and sixth and seventh striæ show a series of four or five strong punctiform impressions; the margin is also strongly impressed; legs, palpi, and antennæ of a dark brown; the latter pubescent after their third article.

Gipps Land, Victoria.

*Feronia Peronii*: length  $9\frac{1}{2}'$ ; of a metallic green colour; head large, impressed in front; thorax short, cordiform, with the anterior angles rounded and the posterior straight; the impressions strong and deep, with the exception of the front transversal one; elytra oval, depressed, strongly striated, with a series of three or four punctiform impressions between the second and third striæ; the margin strongly impressed; legs, palpi, and three first articles of the antennæ brown, the others of the latter black and hirsute; the tibiæ and tarsi of the two last pairs of legs dark and almost black.

Mountains of Victoria.

Dedicated to the learned Peron, naturalist to Captain Baudin's exploring expedition.

*Feronia Cræsus*: length  $9'$ ; black, with a purple tinge; head and thorax of a fine copper gilt colour; the latter almost square, rather broader in front than behind, with the anterior angles very much rounded, the posterior obtuse and rather curled upwards; the longitudinal sulcate well marked, and the posterior impressions broad and deep; elytra oblong, rather depressed, strongly striated with a series of five or six punctiform impressions between the second and third striæ, and sometimes one or two on the fourth to fifth; the margin impressed; palpi and first articles of the antennæ brown, the others black and hirsute.

Mountains of Victoria.

*Feronia Plutus*: length  $9\frac{1}{2}'$ ; very much like the precedent, but still more beautiful; head and thorax of a gold colour; elytra purple, with the part near the sutura black; the general form is more elongated; head very large; thorax longer and narrower, with the anterior angles pointed and the posterior ones straight; elytra having the same series of punctiform impressions, and also one unique similar impression towards the middle of the space between the fourth and fifth striæ; the striæ become very feeble towards the external margin.

Mountains of Victoria. Very rare.

*Feronia Opulenta*: length 8'; similar to *Plutus* in point of colouring, but much smaller; head small and oval; elytra more depressed, and equally covered with strong striæ; a series of three or four punctiform impressions on the interval between the second and third striæ; the spaces between the elytra are convex in this sort, and depressed in the former.

Mountains of Victoria. Common.

*Feronia Lesueurii*: length 9'; of a long cylindrical form, and of a brilliant bronzed black; head oblong, with the impressions between the eyes very feeble; thorax longer than broad, rather cylindrical, with all the angles rounded; no transverse impression in front, but the sulcate and two posterior impressions deep; the surface covered with transverse striolæ; elytra long, oblong, deeply and equally striated with two punctiform impressions on the posterior part of the interval between the second and third striæ; margin impressed; the elytra more or less copper colour; lower side of the body and legs of a brilliant black; tarsi, antennæ, and palpi of a reddish brown.

Illawarra, New South Wales.

*Feronia Tasmanica*: length  $7\frac{1}{2}'$ ; of a brilliant black; head small, elongated, with the two front impressions rather feebly marked; thorax large, almost square, rounded laterally, a little narrower in front than behind; the impressions feeble, with the exception of the two posterior ones, which are elongate and deep; elytra oval, depressed, with the axillary angles marked; they are covered with rather deep striæ, the intervals of which are not elevated; between the second and third striæ are three punctiform impressions, and the margin is impressed; palpi, tarsi, and antennæ, brown, the latter hirsute, except on the first articles.

Tasmania.

*Feronia Diemenensis*: length  $8\frac{1}{2}'$ ; nearly allied to the precedent, but very distinct; the impressions of the head deeper; thorax more cordiform, and considerably narrowed backwards, with the posterior angles brilliant, and rather acute; the impressions deeper, and the posterior ones broader; elytra having a dark purple tinge, their striæ are not so deep near the sutura as towards the margin; the latter is carinated; the legs and base of antennæ rather purple.

Tasmania.

*Feronia Victoriae*: length  $7\frac{1}{2}'$ ; of a brilliant black, with the elytra of a dark blue, sometimes with a purple tinge; head rather rounded, feebly impressed in front; thorax

rather longer than broad, cordiform, with the anterior angles rounded, and the posterior rather prominent and acute; front transverse impressions very little marked, longitudinal sulcate feeble; posterior impressions deep; elytra oval, striated; three punctiform impressions between the second and third striae; margin impressed; palpi and first articles of the antennae brown, the other articles hirsute.

Common in the Mountains of Victoria.

*Feronia Auricollis*: length 7'; very nearly allied to *Victoriæ*, but head and thorax of a fine gilt copper colour; thorax narrower, about as broad in front as behind, rounded laterally.

With the precedent.

*Feronia Marstersii*: length 6'; very much like *Victoriæ*, but thorax more cordiform, and broader in front; elytra more deeply striated, with two punctiform impressions on the posterior part of the intervals between the second and third striae.

Pine Mountains, near Ipswich.

*Feronia Wilcoxii*: length 7'; of a dark colour, sometimes with a purple tinge; head and thorax often of a copper colour; form elongate; head rather large, feebly impressed in front; thorax cordiform, much narrower behind than in front; anterior angles advanced, the posterior rather acute, the front transverse impression very feeble, but the longitudinal sulcate and the posterior impressions very deep; the surface is generally covered with very faint transverse striolae; elytra oblong, strongly striated; the interval between the second and third striae having two punctiform impressions on its posterior part; the margin impressed; lower side of the body and legs of a brownish black; palpi and antennae rather lighter; the latter hirsute, except on their first articles.

Clarence River.

*Feronia Gippslandica*: length  $8\frac{1}{2}$ '; of a rather dark copper green; head elongate; thorax about as long as broad, rounded laterally, broader in front than behind, with all its angles rounded; the impressions, except the anterior one, are strong and deep, and the entire surface is covered with strong transverse striolae; the elytra are oval, rather depressed, striated with a series of five or six punctiform impressions on the interval between the second and third striae, and two more on the one between the fourth and fifth; the margin is impressed; lower side of the body and legs of a brilliant black;

palpi brown; antennæ with their first articles black, and the other articles covered with a brown villosity.

Mountains of Gipps Land, Victoria.

*Feronia Phillipsii*: length  $8\frac{1}{2}'$ ; this insect has a great deal of the form and appearance of *Æques*, but is smaller, and of a dark copper colour; the posterior angles of the thorax are more obtuse; on the interval between the second and third striæ there is a series of seven or eight punctiform impressions, and on the one between the fifth and sixth one or two more; the tibiæ and tarsi are brown.

Mountains of Gipps Land.

*Feronia Semiviolacea*: length  $8'$ ; black, with purple elytra; body depressed; the impressions of the head very feeble; thorax rather broader than long, cordiform; the sides and anterior angles rounded, the posterior angles well marked, and rather turned upwards; the impressions moderately marked, but the two posterior ones long and deep; elytra oval, striated, with the interval between the second and third striæ bearing three punctiform impressions; margin striated; legs black, tarsi and palpi brown.

Mountains of Victoria.

*Feronia Impressicollis*: length  $7\frac{1}{2}'$ ; oblong, rather depressed; head oval, feebly impressed in front; thorax nearly as long as broad, rather narrower behind than in front, with the sides rounded; the anterior angles are rather rounded, and the posterior ones sub-obtuse; the posterior margin is cut convexly in its middle; the anterior and middle impressions are moderate, but the posterior ones are deep, and extend to one half the length of the thorax; elytra oblong, striated, with two punctiform impressions on the posterior part of the interval between the second and third striæ; the margin is impressed; the insect is black, with the head and thorax of a dark green; the elytra have a purple tinge; tibiæ, tarsi, and base of the antennæ of a dark brown; the remaining of the latter hirsute.

Mountains of New South Wales and of Queensland.

*Feronia Vilis*: length  $5\frac{1}{2}'$ ; black, shiny; the impressions between the eyes rather deep; thorax large, sub-quadrangular, very little broader than long, rather narrowed behind; the sides rounded, the posterior angles rather obtuse, the transverse front impression faint, the longitudinal sulcate well marked; the posterior impressions rather deep,

elongated, and on each side, behind the posterior angle, is seen an extra impression, shorter than the others; elytra oblong, striated, having one or two irregularly placed punctiform impressions on the interval between the second and third striæ; margin impressed; legs, parts of the mouth and antennæ of a dark brown.

Mountains of Victoria.

*Feronia Subvilis*: length 6'; allied to *Vilis*, but more elongated; thorax narrower, and much more cordiform; impressed in the ordinary manner, without the extra posterior impression; elytra more elongated; legs black, with the tarsi brown.

Mountains of Victoria.

*Feronia La Peyrousi*: length 11'; head and thorax of a dark copper colour; the first rather large, and strongly impressed between the eyes; thorax rather short, cordiform, transverse, with the anterior angles rather rounded, and the posterior ones straight and rather turned up; the anterior transverse impression hardly visible; the sulcate and the two posterior impressions very deep; elytra oval, rather oblong, black, with a copper-coloured margin; they are covered with striæ; the interval between the second and third bearing a series of five or six punctiform impressions; the margin is impressed; lower side of the body and legs black; palpi black, with the extremity red; antennæ black at the base, with the remaining hirsute and brown.

Ash Island, New South Wales.

*Feronia Resplendens*: length 9'; oblong; head rather elongate, colour of dark bronze; thorax longer than broad, as wide in front as behind, rounded laterally; the transverse impression very feeble; the longitudinal sulcate well marked; the posterior impressions long and deep; the anterior angles rounded; the posterior ones obtuse; the middle of the thorax is of a dark bronze, with the sides of a fine gilt colour; elytra oblong, rather parallel, striated; a row of generally fine punctiform impressions on the interval between the second and third striæ; the margin impressed; the colour of the elytra is of a dark purple, with the margin of a beautiful red gilt tinge; lower side of the body and thighs of a dark brown; tibiæ and tarsi lighter; palpi and antennæ brown.

Merimbula, New South Wales.

*Feronia Hunteriensis*: length 8'; very much like *Feronia Resplendens*, and having entirely the same colouring, but

general form shorter; thorax almost round, and rather broader than long, with the posterior angles rounded; only two punctiform impressions on the interval between the second and third striæ.

From the Hunter River (New South Wales).

Note.—A variety of a darker and more opaque aspect is found in various parts of New South Wales.

*Feronia Striatocollis*: length  $6\frac{1}{2}'$ ; black, with a metallic tinge on the head and thorax; the latter considerably longer than broad, as wide behind as in front, rounded laterally, with the angles obtuse; the front impression is hardly visible; the sulcate strong, as also the posterior and elongate impressions; the entire surface is covered with rather strong transverse striolæ; the elytra are oval, almost black near the sutura, becoming purple sideways, with the margin impressed, and of a beautiful gold colour; they are striated with two strong punctiform impressions on the posterior half of the interval between the second and third striæ; lower side of the body, legs, palpi, and antennæ of a brownish black, the latter hirsute after their third article.

Clarence River.

*Feronia Purpureolimbata*: length 7'; of a dark black; thorax a little broader than long, rounded laterally, narrower behind than in front; the anterior angles rounded, and the posterior ones rather acute; the anterior impression obliterate, the sulcates strong, the posterior impressions curved, elongate and deep; the entire surface covered with transverse striolæ; elytra oval, of a dark black, with the margin of a golden purple colour; they are striated, and on the interval between the second and third striæ are two punctiform impressions. On all the posterior parts of the elytra are numerous irregular, rather elongated impressions, the margin feebly impressed; lower side of the body, legs, antennæ, and palpi of a dark brown.

Clarence River.

*Feronia Impressipennis*: length  $8\frac{1}{2}'$ ; black, with the elytra generally more brilliant than the thorax, and having usually a brilliant green margin; head oval; thorax large, rounded laterally, as broad in front as behind, with the angles well marked; no transverse impression in front; the sulcate strong, the posterior impressions elongated, deep, and rather curved; elytra oblong, striated; the entire surface, except the basis, covered with numerous deep and irregular impressions; lower side of the body and legs black; tarsi



and palpi brown; antennæ black, covered after their third article with a brown pubescence.

Clarence River.

*Feronia Aubei*: length 9'; entirely of a brilliant black; thorax round, with the anterior impression hardly visible, the longitudinal sulcate feeble, the posterior impressions broad and well marked; elytra oblong, strongly and deeply striated; no punctiform impressions between the striæ, but several on the anterior half of the margin, the posterior part of which is impressed.

From the Hunter River.

*Feronia Azureomarginata*: length 11'; of a brilliant black; head oval, very feebly impressed between the eyes; thorax round, with the anterior impression very feeble; the sulcate also very lightly marked, but ending behind in a deep punctiform impression, the posterior impressions broad; elytra oblong, broader towards the two posterior thirds of their length than at the basis, having the humeral angles prominent and almost carinated; they have a purple blue margin, are covered with puncturated striæ, and on the interval between the second and third of the latter are two punctiform impressions; the margin is impressed; the tarsi, palpi, and antennæ are brown.

From the Lachlan, and Hunter River, in New South Wales.

*Feronia Viridilimbata*: length  $7\frac{1}{2}$ '; black; interocular impressions very lightly marked; thorax rather broader in front than behind; rounded laterally and at the anterior angles, the posterior obtuse front impression very feeble, but the sulcate and the posterior impressions very deep, the last almost linear; elytra oval, rather depressed, covered with strong striæ, the intervals between the second and third, fourth and fifth being broader than the others; on the interval between the second and third are seen two punctiform impressions, one after the middle, and the other towards the extremity; margin impressed, and of a fine green; lower side of the body of a brilliant black; legs, palpi, and antennæ brown.

Brisbane, Queensland.

*Feronia Amabilis*: length 6'; head and thorax of a fine purple, with copper tinges; thorax cordiform; a little longer than broad; the front transverse impression well marked, as also the sulcate and the two posterior impressions, the latter broad; elytra oval, rather oblong, with strong striæ; on the interval between the second and third are four punctiform

impressions; the margin impressed; the colour of the elytra is a dark iridescent purple, with a golden margin; lower side of the body, legs, antennæ, and palpi brown.

Merimbula, New South Wales.

*Feronia Viridimarginata*: length 8'; black; head oval, with a copper tinge; thorax about as broad as wide, rounded laterally; narrower behind than in the middle, with the anterior angles advanced; the front impression very faint, the sulcate strong, the two posterior impressions deep but nearly linear; the surface is marked with very faint transverse striolæ; the elytra are oblong, rather elongated, of the breadth of the thorax at their basis; they are opaque, of a dark purple, almost black, with a metallic green margin; they are covered with striæ, the intervals of which are not convex, but the one between the second and third having on its posterior part two punctiform impressions; margin also impressed; lower side of the body, antennæ, and legs of a brilliant black; tarsi and palpi rather brown.

Brisbane.

*Feronia Darlingii*: length  $7\frac{1}{2}'$ ; very much like the precedent, and might easily be taken for it, but the thorax attenuated behind and more cordiform; the elytra more oval, and narrower near the basis, with the humeral angles more rounded.

The colour is sometimes black, sometimes of a dark copper, with the margin of the elytra green.

Found by Mr. Masters in the Pine Mountains of Queensland.

### THIRD GROUP.—OMASEUS.

*Feronia Mitchelli*: length  $7\frac{1}{2}'$ ; black, sometimes copper colour; head rather large; thorax large, almost square, a little narrower behind than in the middle, with the angles rather rounded; the transversal front impression very feeble; the sulcate and the two elongated posterior impressions strongly marked; elytra rather oblong, striated, with two punctiform impressions on the posterior part of the interval between the second and third striæ; margin striated; lower side of the body, legs, palpi, and antennæ black.

Queensland, New South Wales, and Victoria.

*Feronia Rufipalpis*: length 6'; black; head large; thorax short, transverse, rounded laterally and at the anterior angles, the posterior being well marked and rather obtuse; the front impression is very faint, the sulcate and posterior impressions

rather deep ; a few very faint longitudinal striolæ are seen on the posterior margin ; elytra oval, striated ; a series of five punctiform impressions on the interval between the second and third striæ ; margin impressed ; thighs black ; tibiæ, tarsi, and palpi of a dark red ; antennæ with their first articles black, and the others covered with a brown pubescence.

Mountains of Victoria.

#### FOURTH GROUP.—PÆCILUS.

The only Australian insects described belonging to this section are—

*Feronia Prolixa*, Erichson, from Tasmania and New South Wales ; a specimen from Clarence River differs by the striæ of the elytra being much less deep.

*Feronia Chalybea*, Dej., unknown to me.

*Feronia Sphæroidese*, Dej., from New South Wales.

The following appear undescribed :—

*Feronia Resplendens*: length 8' ; of a fine metallic green, with the elytra sometimes of a brilliant copper colour ; thorax rather broader than long, wider behind than in front, rounded laterally, with the transverse front impression moderately marked ; the sulcate very feeble ; two impressions on each side near the posterior angles, the inner one being much longer than the other ; elytra long, rather broad, depressed, covered with feeble longitudinal striæ, which are very finely punctated ; the sutural stria bifurcated towards the scutellum ; margin impressed on its posterior half ; lower side of the body, legs, antennæ, and palpi black.

Rather common in the interior parts of New Holland, on the Lachlan, the Darling, the Paroo Rivers, and also found sometimes at Adelaide and in the Swan River district. It is also very nearly allied to a New Caledonian insect, and perhaps not distinct from it.

Note.—Some specimens have the thorax narrower behind, but I find all transitions between them and the typical specimen.

Variety, almost black. Swan River.

*Feronia Iridipennis*: length 5'-6' ; of a brilliant black with the elytra iridescent ; form rather elongated ; head oval, bi-impressed in front ; thorax longer than wide, as broad in front as behind, rounded laterally, with the anterior transverse impression and the longitudinal sulcate very feeble ; the two posterior impressions better marked and

elongated; elytra oblong, striated, with an abbreviated stria near the scutellum; three punctiform impressions on the third stria; one at less than one-third of the length, the other near the middle, and the third at about the two posterior thirds of the length; margin impressed; tarsi, palpi, and antennæ of a dark brown.

New South Wales, Victoria, and Adelaide.

*Feronia Iridescentis*: length  $4\frac{1}{3}$ ' ; only differs from the precedent by its form being less elongated; the elytra broader and more oval, without punctiform impressions, or at utmost one on the centre; tarsi, palpi, and antennæ of a light brownish red.

Rockhampton and Clarence River, and also from the Paroo River, in the interior of New Holland.

*Feronia Interioris*: length 6' ; of a brilliant black; head small, oval, feebly bi-impressed in front; thorax almost square, rounded laterally, a little broader behind than in front; anterior and longitudinal impressions very feeble; the posterior ones strong, broad, and deep; elytra oblong, depressed, striated; a short abbreviated stria near the scutellum; a punctiform impression on the posterior part of the second stria, and another towards the middle on the third; margin impressed; legs, antennæ, and palpi of a dark brown.

Paroo River, in the interior of Australia.

*Feronia Gagatina*: length  $3\frac{2}{3}$ ' ; of a brilliant black; head oval; thorax rather broader than long, rounded laterally, and at the posterior angles; the anterior ones rather acute; a faint transverse impression in front, and another behind; the longitudinal sulcate, and two posterior elongated impressions, rather deep; elytra oval, strongly striated, with one or two irregularly placed impressions towards the middle of the impression between the second and third striæ; the sutural striæ sinuous towards the scutellum, but no abbreviated stria; seen through a strong magnifying power, these striæ appear rather punctated; legs, palpi, and antennæ black.

Tasmania.

Note.—For this and for *Iridipennis* I have preserved manuscript names, given I believe, by Mr. MacLeay, in his collection.

*Feronia Subgagatina*: length 5' ; very much like *Gagatina*, and only differing from it by its larger size and the colour of the tarsi, palpi, and antennæ, which are of a light reddish brown.

Pine Mountains of Queensland.

*Feronia Rufilabris*: length 5'; of a brilliant black; head oval, very lightly impressed in front; the labrum and palpi of a reddish brown; antennæ of the same colour, with their first four articles darker; thorax almost square, rather broader in front than behind, rounded laterally, having the front impression and the longitudinal sulcate moderately marked, and the two posterior impressions deep, narrow, and elongated; the posterior part of the thorax is punctated; elytra oblong, strongly punctated, striated; the sutural stria sinuous towards the scutellum, but no abbreviated stria; there is a punctiform impression towards the middle of the third stria; the elytra are iridescent; lower side of the body of a dark brown; legs black; tarsi brown.

Pine Mountains of Brisbane.

Note.—These three last sorts could be placed almost as well with *Argutor* as with *Pœcilus*.

*Feronia Funebri*: length 10'; of a brilliant black; head rather small, oval, with two longitudinal impressions in front; thorax rather transverse, almost square, with the anterior angles rounded, and the posterior straight; the anterior transverse impression is feeble; the longitudinal sulcate moderately marked; the two posterior impressions very broad; the elytra oblong, depressed, strongly striated; the sutural stria bifurcated towards the scutellum; on the margin is a punctated stria, on which are seen a few larger punctiform impressions; tarsi, palpi, and antennæ rather brown.

This fine insect was found at Mount Gambier, and is in Dr. Howitt's collection.

#### FIFTH GROUP.—OMASEUS.

In this division comes the *Feronia Australasiæ* of Dejean, which is found commonly in Victoria, New South Wales, South Australia, and extends towards the interior, as far as the rivers Darling and Paroo; the following sorts appear undescribed.

*Feronia Lachlandiensis*: length  $7\frac{1}{2}'$ ; nearly allied to the precedent, but the thorax is not cordiform, being rounded laterally, and much broader in front than behind; the posterior angles are more rounded.

The insect is of a brilliant black, with the tarsi brown; the palpi and antennæ of a light brownish red.

From the Lachlan River.

*Feronia Clarenciensis*: length 5'; of a brilliant black;

head rather triangular ; thorax rather broader than long, rounded laterally, rather wider in front than behind, with the front transverse impression not visible, the longitudinal sulcate moderately marked, the two posterior impressions elongated and deep ; elytra oblong striated ; the sutural stria diverging a little near the scutellum, but no abbreviate stria ; the striae are strong near the sutura, but become more feeble, and almost disappear towards the sides ; the margin feebly impressed ; the tarsi and palpi of a reddish colour ; antennæ almost black, hirsute after the third article.

Clarence River.

*Feronia Subcarbonaria*: length  $5\frac{2}{3}'$  ; black, brilliant, rather depressed ; thorax broader than long, cordiform ; the anterior impression not visible ; the longitudinal sulcate well marked ; on the posterior part are two longitudinal and narrow impressions, and two others much shorter on the posterior angles ; elytra oval, strongly striated near the sutura, and very lightly towards the margins ; the sutural stria diverging a little towards the scutellum, but no abbreviated one visible ; margin impressed on its posterior half ; tarsi and palpi of a dark brown ; antennæ black, with the articles after the fourth hirsute.

Victoria and New South Wales.

Note.—I have seen this insect in European collections under the name of *Sphodroides*, Dej., but the description of this author does not in the least agree with it.

*Feronia Centralis*: length 7' ; very much like *Australasiæ*, but thorax instead of being cordiform, is almost square, and about as broad behind as in front.

Darling River.

*Feronia Arnheimensis*: length 6' ; black, head rather large ; thorax cordiform, with no appearance of a transverse impression ; longitudinal sulcate moderate ; posterior impressions rather broad and deep ; elytra oblong, depressed, having each five entire striae, and two others abbreviate and only visible on the posterior part of the elytra, having on the remaining portion a smooth part towards the margin ; these striae grow deeper as they go towards the sutura ; two other striae follow the margin ; lower side of the body black ; legs, palpi, and antennæ brown.

Brought from Arnheim's Land by Mr. Waterhouse.

*Feronia Occidentalis*: length ' ; very much like *Arnheimensis* ; the posterior impressions of the thorax broader ; elytra a little narrower, and more convex, with two puncti-

form impressions on each, between the second and third striæ.

King George's Sound.

*Feronia Satanus*: length  $8\frac{1}{2}'$ ; of a brilliant black; head large, oval, with the front longitudinal impressions well marked; thorax rounded, truncated in front and behind, with the longitudinal sulcate moderate, the front impressions almost missing, and the posterior ones deep and broad; elytra oblong, rather convex, of a dark purple; they have five striæ, which are stronger near the sutura, and disappear towards the margin, which is impressed; two punctiform impressions on the interval between the second and third striæ; legs black; palpi brown; antennæ black, covered after their fourth article with a brown pubescence.

King George's Sound.

#### SIXTH GROUP.—PERCUS.

*Feronia Bipunctatus*: length  $9'$ ; of a brilliant black; head oval, feebly impressed in front; thorax almost square, with the angles rounded; the front transverse impression is feebly marked, the sulcate moderately so, but the two posterior impressions are deep and linear; elytra oblong, rather elongate, convex, covered with striæ, which are much stronger near the sutura than towards the margin, which is impressed; a strong punctiform impression appears on the interval between the second and third striæ, considerably beyond the middle of the length; the humeral angles are well marked, and the sides of the elytra have sometimes a green tinge; legs, palpi, and antennæ black.

Very common round Melbourne, and also found in New South Wales, Queensland, and South Australia.

This insect is subject to great variations—

Variety—Of a brilliant green.

Variety—Small size ( $7'$ ), and green, from the Islands of the Straits of Bass.

Variety—Elytra more oblong, and rather depressed; of a brilliant copper purple, or green colour.

From the floods of the Yarra River.

Variety—Thorax entirely covered with transverse stricta. Melbourne.

*Feronia Montana*: length  $8'$ ; nearly allied to *Bipunctata*, but the thorax much shorter and broader, with elytra more

oval, more convex, narrowing considerably in front, and with the humeral angles very lightly marked; the striæ are strong.

Mountains of Gipps Land.

Note.—This insect has something of the appearance of *Feronia Navarica*.

*Feronia Lacustris*: length 10'; very much like *Bipunctata*, but larger; of a very brilliant black; anterior angles of the thorax more rounded; elytra more oval, and generally quite smooth to the naked eye; the punctiform impression on each elytra well marked.

From Lake Alexandrina, on the Lower Murray.

#### SEVENTH GROUP.—ABAX.

*Feronia Boisduvalii*: length 6'; oblong, black; head rather large; thorax almost square, narrower behind than in front; rounded laterally, with the anterior angles rather advanced, and the posterior ones straight; the front impression is hardly perceptible; the sulcate and posterior impressions well marked, the latter almost linear; elytra depressed, striated; three punctiform impressions on the interval between the second and third striæ; an abbreviated stria near the scutellum, between the first and second striæ; margin impressed; lower side of the body, legs, antennæ, and palpi brown.

Picton, New South Wales.

*Feronia Reichei*: length  $4\frac{2}{3}'$ ; very much like precedent, of which it may be a simple variety, but smaller, and rather narrower; the colour is of a dark brown, with a metallic tinge.

Kiama, New South Wales.

#### EIGHTH GROUP.—STEROPUS.

*Feronia Germari*: length 7'–9'; very much like the *Civilis*, Germar ("Linn. Entomol."), to which this author has united it, as being its feminine sex, but for all my *Civilis* are every one males, I have the two sexes among *Germari*.

This insect is much larger than *Civilis*, and the striæ of the elytra are strongly punctated, except towards the extremity and basis, and extend laterally to the margin; one single punctiform impression is seen on the third stria; the elytra are oblong and elongated.

Common at Adelaide.

*Feronia Saphyreo-marginata*: length 7'–9'; very much like *Civilis* and *Germari*, but with margin of the elytra of a



beautiful blue; the striæ of the elytra are very strongly punctated, except towards the extremity; the elytra are oblong.

Melbourne.

*Feronia Saphyripennis*: length 8'; same form and general appearance as the precedent, but the elytra are entirely of a beautiful purple; they are strongly striated in all their length, and the striæ are strongly punctated, except behind; the form of the elytra is oval, with two punctiform impressions on each near the third stria.

Under sea-weeds on the seashore, Adelaide and Melbourne.

*Feronia Esmeraldipennis*: length  $6\frac{1}{2}'$ ; head and thorax of a dark bronzed colour, the first oval; thorax almost round, a little longer than in the precedent species; the lateral margin becoming very broad behind, as in those; the impressions moderate; elytra covered with strong striæ, extending to all the length of the insect, and being punctated in their first two thirds; they have each two punctiform impressions on the third stria, and their colour is of a fine brilliant metallic green; lower side of the body and legs of a dark brown; antennæ and palpi of a lighter colour.

Adelaide, very rare.

*Feronia Olivieri*: length 7'; very much like *Germari*, but the elytra much more oval and rounded; the striæ extending in full depth to the basies, and to the extremity.

Adelaide and Melbourne.

*Feronia Bonvouloirei*: length  $7\frac{2}{3}'$ ; very nearly allied to *Germari*, but smaller; elytra elongated, and much narrower in front; their broader part being towards the two posterior thirds of the length; the humeral angles more prominent; the striæ not generally so deep.

Brisbane, Queensland.

*Feronia Rockhamptoniensis*: length 8'; general form rather broad; of an obscure black; thorax transverse, rounded, with the impressions feeble, except the two posterior ones; elytra oval, rather broad and depressed with striæ, which appear punctated under a magnifying power, and which extend on the entire length of the elytra, but grow weaker towards the sides; a punctiform impression on the posterior part of the interval between the second and third striæ, and a series of the same on the margin; lower side of the body and legs more brilliant; tarsi and extremity of the palpi brown; antennæ black, but covered after their first four articles with a brown pubescence.

Rockhampton, Queensland.

*Feronia Waterhousii*: length  $4\frac{1}{2}'$ ; brown, head very feebly impressed between the eyes; thorax rounded, rather longer than broad; the front impression not visible, and the sulcate feeble, but the two posterior impressions broad and deep; elytra oval, oblong, very much rounded at the humeral angles, entirely and equally covered with single striæ, not very deeply marked; on the back part of the interval between the second and third striæ is a punctiform impression, and a series of others extend laterally on the ninth stria; lower side of the thorax and legs of a light red, abdomen darker; palpi and antennæ of a light reddish colour.

Adelaide.

*Feronia Elegantula*: length  $4'$ ; very much like *Waterhousii*, but of a still more slender and elegant form; thorax much narrower behind; elytra more elongated and oval; three punctiform impressions on the interval between second and third striæ.

Found by Mr. Masters at King George's Sound.

*Feronia Mastersii*: length  $3\frac{1}{2}'$ — $4\frac{1}{2}'$ ; also very much like *Waterhousii*, and having the same form of thorax, but elytra much more elongated and deeply striated; three punctiform impressions in the interval between the second and third striæ; margin strongly impressed; lower side of the body and legs of a dark brown; thighs almost black; antennæ and palpi of a light reddish brown.

Found by Mr. Masters at Port Lincoln.

*Feronia Blagravii*: length  $5'$ ; oval, elongated, of a dark glossy brown; head oval; mandibulæ advanced and arched; thorax as long as broad, of the same breadth in front as behind; very rounded laterally, with the margin growing much broader on its posterior part; the front impression and the sulcate are feeble, but the posterior impressions are deep and elongate; elytra oval, rather elongated, striated; a very short abbreviated stria near the scutellum, and in that place the sutural one diverges obliquely; three punctiform impressions on the interval between the second and third striæ; the margin impressed; lower side of the body, legs, parts of the mouth and antennæ of a dark brownish red.

Swan River.

#### NINTH GROUP.—ARGUTOR.

Two species of this division have been described.

*Feronia Australis* (Dej. species), and *Argutor Sollicitus* ("Erich. Archiv").

The following sort appears new :—

*Feronia Inedita*: length 4'; of a brilliant black, elytra of a dark blue; head rather triangular, with two impressions between the eyes; thorax short, transverse, rather cordiform, with a transverse impression in front and another behind; a rather deep longitudinal sulcate in the middle; behind, there are two rather deep and broad impressions, and two others smaller towards the angles; elytra oval, strongly striated; the sutural stria diverging towards the scutellum, but no abbreviated one; two punctiform impressions on the interval between the second and third striæ; one situated a little after the middle of the length, and the other backwards; near the apex, in the place where the striæ unite, there is also a broad and rounded impression; the margin impressed; thighs brown; legs, tarsi, palpi, and antennæ of a light brownish red.

Pine Mountains of Queensland.

Note.—The general form of this insect is very much like the one of *Sollicitus*.

A large number of other sorts of *Argutor* inhabit Australia. I postpone their study to my next publication on Australian *Carabidæ*.

---

ART. XVI.—*Rubellite—Red Tourmaline—found at Tarrangower, Victoria, 1867.* By the REV. J. J. BLEASDALE, D.D.

[Read 8th July, 1867.]

I owe my knowledge of the discovery of this gem-stone (new to Victoria) to the courtesy and kindness of Mr. A. R. C. Selwyn, Government Geologist. It was found in Broadford Lead, Tarrangower, but by whom, precisely, I do not know. We are now acquainted with the mineral Tourmaline, under the following generally known names, viz. :—

1. Common School: a black, hard substance, found frequently and abundantly in quartz rocks about the gold-fields.

2. Transparent Green Tourmaline: discovered by myself in granite rubbish, not far from Benalla. This consisted of three specimens. One, the largest, about an inch long and a quarter-inch in diameter, and of the colour known as dark bottle green. The other two were smaller and of a paler